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ABSTRACT

This guide to employee safety in the office is designed for use by the business education teacher who is interested in instilling a respect for the practice of sensible safety habits. It is a compilation of lesson plans focusing on eight major topics: careful design of office environment; safe use and maintenance of office equipment; appropriate use and storage of office supplies; precautions for use of high technology equipment; personal safety precautions to, from, and while on the job; body mechanics for the office environment; techniques for dealing with stress in the business office; and procedures for reporting and handling injuries in the office. Each lesson plan contains these components: learner objectives, a listing of resources, an outlined description of learning activities, and evaluation design. One or all of the following aids may be provided: student information sheet(s), student assignment sheet(s), test(s), test key(s), transparency master(s), and bulletin board design(s). Whenever appropriate, self-checks (and keys) and a listing of references are also included. An office health and safety questionnaire is attached. (YLB)

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SAFETY TIPS
FOR
THE BUSINESS SETTING

U.S. DEPARTMENT OF EDUCATION
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FOREWORD

Teaching an awareness of safety and the practice of sensible safety habits and techniques is a vital component of vocational education. According to information compiled by the National Safety Council, accidents in all industries in 1978 accounted for 13,000 deaths and 2,200,000 disabling injuries. Thus, the point is obvious that as long as accidents occur, "Safety First" is not merely an idle saying!

Good lifelong safety habits can begin in the classroom...

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INTRODUCTION

Employee safety is not merely a concern for the industrial plant or construction site. Offices too are the scene of painful and disabling injuries which not only cause grief to the employee, but can also cost thousands of dollars in hospital and medical benefits, increased insurance costs, decreased production, and a loss of managerial or office support. Most accidents occurring at the office could be prevented by the exercise of caution by enlightened personnel.

Awareness of the rewards of good safety habits needs to begin in the classroom where the young, potential employee is learning work skills. **Safety Tips for the Business Setting** was developed for use by the business education teacher who is interested in instilling a respect for the practice of sound safety.

Use of the Guide

Safety Tips for the Business Setting is a compilation of lesson plans focusing on eight major topics:

I. Careful Design of Office Environment
II. Safe Use and Maintenance of Office Equipment
III. Appropriate Use and Storage of Office Supplies
IV. Precautions for Use of High Technology Equipment
V. Personal Safety Precautions To, From, and While On the Job
VI. Body Mechanics for the Office Environment
VII. Techniques for Dealing with Stress in the Business Office
VIII. Procedures for Reporting and Handling Injuries in the Ofice

Each lesson plan contains one or all of the following aids: student information sheet(s), student assignment sheet(s), test(s), transparency master(s), and bulletin board design(s). Whenever appropriate self-checks and a listing of references are also included.

The format of the lesson plans is simple and direct, beginning with a statement of learner objective; moving to a listing of necessary resources; then turning to an outlined description of learning activities; and concluding with an evaluation design. Occasionally outside class activities are suggested.

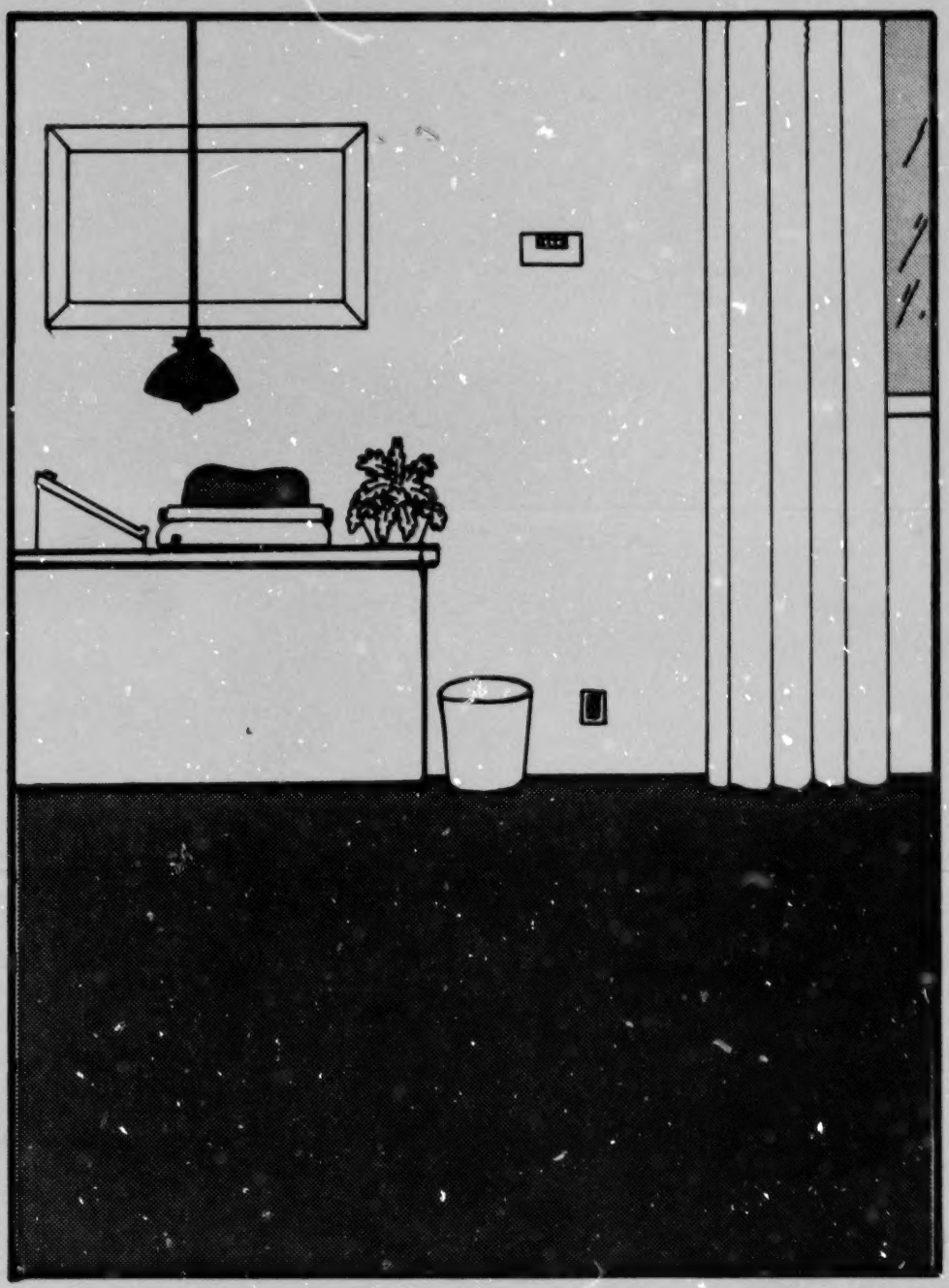
The guide is color coded for the convenience of the instructor. Tests are light blue; keys are dark blue. Student assignment sheets are yellow while student information sheets are green.

A supplement is included for use as the instructor deems appropriate: "Office Health and Safety Questionnaire," **Occupational Hazards** by Joel Makower (Tilden Press, Washington, D.C., 1981). Another suggested resource is **Let's Teach Safety: A Directory of Classroom Resources,** a valuable aid available from the American Vocational Association, Inc., 2020 North Fourteenth St., Arlington, Virginia 22201 (order number #10480;) publishing date - 1980.

The lessons are presented in a suggested order for instruction; however, the teacher may elect to approach the instruction differently. Each lesson stands independently and may be taught in isolation.

The creativity and individual style of the teacher will certainly determine the manner in which the topic of safety is approached. **Safety Tips for the Business Setting** was designed to serve simply as a springboard of ideas.

CAREFUL DESIGN OF OFFICE ENVIRONMENT



LESSON TOPIC: CAREFUL DESIGN OF OFFICE ENVIRONMENT

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to

1. Describe an open office.
2. List problems caused by the open office plan.
3. Describe a proper office chair.
4. List and explain the factors included in lighting control.
5. List the causes of noise in offices and give solutions to the noise problems.
6. List and explain the four factors in proper air control.
7. Explain how color affects the health of employees.
8. State the preferred floor covering for offices and explain the reason that it is preferred.

RESOURCES

Transparencies
Overhead projector
Pictures of open office and modern workstations (available in any word processing book)

LEARNING ACTIVITIES

1. Have the student read the Student Information Sheets, divided into five units.
   a. Ask preview questions to introduce each unit. Examples:
      (1) Have you ever gotten a backache after sitting too long? What caused the backache?
      (2) Have you ever been blinded by glare? Did it give you a headache?
      (3) Does noise bother you? Can you take a test when other people are talking?
      (4) Can you work or study in a hot room? A cold room? Why or why not?
      (5) What color is your room? Do you study in your room? Does the color of your room affect your studying?
   b. Have students answer the Self-Check questions after each unit.
   c. Discuss the Student Information Sheets and the Self-Check questions. Use Transparencies #1-7 in your discussion.
2. Have the student complete the Assignment Sheet.

3. Take a field trip to a modern office in your area. Ask the students to observe the environment of the office. If possible, allow the students to ask the workers questions about the effect of the environment on them. When you return to class, have the students write papers on their observations. Have each student give an oral report on the paper.
4. Evaluate the student's mastery of the lesson.

EVALUATION: Mastery of the learning objectives for this lesson will be determined by a teacher-prepared objective test. (A suggested test is provided.)

OFFICE LAYOUT AND FURNITURE

The traditional office design used many private offices with permanent walls. The large rooms with many workers usually had a row-on-row arrangement of furniture and equipment much as school classrooms are arranged.

Modern businesses now have "open" or "landscaped" offices. This type of design makes use of modular furniture (furniture made of units that can be assembled together), movable partitions, and screens. There are few, if any, private offices with permanent walls. Individual workstations include a desk, chair, files, panels or screens, and storage space hung from the panels above the desk.

According to a recent study of employees in open offices, one out of three was dissatisfied with individual workstations. Their complaints were too much noise, too many distractions, and the inability to move around. Another group of employees stated they would like more privacy, more personal space, and a larger work area. The lack of privacy makes it difficult to concentrate without being disturbed. It also makes telephone conversations and conferences difficult. Because workers are partially in the open, other workers passing by are tempted to stop and to chat. The lack of privacy and noise problems have caused many people in open offices to feel insecure, alienated, and vulnerable.

Office desks should be suited to the type of work being done at the desks. Typing desks should be lower than regular desks to allow for proper posture of the typist. Office desks should be of good quality and solid construction. Desks with splinters or metal shavings that could cause cuts should be replaced.

Most office workers sit for hours so it is very important that their chairs be comfortable so there will be no strained posture. Poorly designed chairs can cause serious back disorders, varicose veins, muscle cramps, and foot swelling.

The seats of office chairs should be adjustable as to height. Chairs that are too high, requiring the legs to dangle, can cause varicose veins and thrombophlebitis, an inflammation of veins in the leg resulting from poor blood flow. Chairs that are too low cause awkward posture which can result in severe pain.

Chairs should support the spine at the top and at the base. Very few secretarial chairs provide this support. The back support should be adjustable vertically. Backrests should touch the lower part of the shoulder blade to provide the arm with support against which to move. The back support should also be adjustable horizontally and have spring tension to allow the worker to lean backward in the seat to stretch and to rest back muscles.

The seat cushion should have only light padding to allow the buttocks to change pressure areas. The seat should be made of a porous material to allow body heat to escape. The front of the seat should be rounded to avoid restricting blood flow in the underpart of the thighs. Footrests should be provided on chairs for shorter people whose feet cannot reach the floor and to allow the feet to change positions and rest.

SELF-CHECK 1

Office Layout and Furniture

Test your knowledge of office layout and furniture by answering the following questions.

1. Describe an open office.

2. List three problems in open offices.

3. List the parts of an office chair that should be adjustable.

4. Describe a well-designed office chair.

5. Why are proper chairs so important to office workers?

KEY TO SELF-CHECK 1

Office Layout and Furniture

1. An open office has movable partitions and screens instead of permanent walls. Individuals have workstations which include a desk, chair, and storage space enclosed with partitions.

2. a. Too much noise
   b. Too many distractions
   c. Lack of personal privacy

3. a. The seat should be adjustable in height.
   b. The back should be adjustable vertically.
   c. The back should be adjustable horizontally.

4. A well-designed office chair should provide back support at the top and base of the spine. The seat cushion should have only light padding. The front of the seat should be rounded. The chair should also have a footrest.

5. Poorly designed chairs cause poor posture which can lead to serious back disorders. Improper chairs can also cause varicose veins, muscle cramps, and foot swelling.

LIGHTING CONTROL

Office workers must see to work. Inadequate and improper lighting contributes to eyestrain which may be the cause of many physical disorders such as muscular tension, eye fatigue, and an increased blinking rate. Poor lighting conditions may cause mistakes and descrease production, as well as leading to fatigue and irritability on the part of the workers. On the other hand, adequate and proper lighting assists in maintaining health and in increasing employee productivity.

Light quantity or intensity is measured in footcandles. One footcandle is the amount of light produced by a standard candle at a distance of one foot. The higher the footcandle level of illumination, the better the health, morale, and efficiency of employees.

In 1960 the recommended illumination levels were 150 footcandles for bookkeeping, and 100 for regular office work. Since that time, lighting designers have lowered those levels. Typical levels recommended for offices now are 50 footcandles for bookkeeping and typing, 40 footcandles for transcribing, and 30 footcandles for filing and general correspondence. However, a recent study has shown that higher levels of illumination (150 footcandles) improve worker performance and accuracy.

Lighting needs are highly individualized, depending upon the type of work being done and an individual's eyesight. Task lighting would allow workers to meet their own individual lighting needs, which would increase satisfaction and reduce stress.

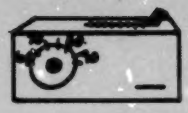
The **quantity** of light in an office can be above minimum requirements and the workers can still be uncomfortable in vision. Good **quality** of lighting also depends upon the elimination of glare and proper contrasts of brightness.

Glare is intense light that comes directly from a light source within the field of vision; for example, a light reflected from a shiny surface. Glare causes the pupils of the eyes to contract and expand as the worker looks at and away from the intense light. The extra muscular action is fatiguing and causes eyestrain and headaches.

Reducing glare involves removing or shielding the source of unwanted light from the eyes. This can be done by repositioning shades, using different fixtures, or moving the worker's position. Reflected glare from shining surfaces can be reduced by using matte surfaces and dull finishes. Window glare is reduced by draperies, blinds, shades, or special glass.

Extreme contrasts of brightness are uncomfortable. These are sometimes found as contrasts between the papers worked with and the desk top, or the desk and the wall. The degree of brightness contrast is measured in terms of a brightness ratio--the reflected footcandles of one object compared to the amount reflected by the other. For example, if the light reflected from working papers is 50 footcandles and from the remainder of the desk top is 25 footcandles, the brightness ratio is 2:1. The recommended maximum brightness ratio between the desk and working papers is 3:1. A brightness ratio higher than 3 to 1 would cause eyestrain because of the adjustment required by the eyes as they move from the light to the dark surface.

Since darkening the work is not possible, the desk top surrounding areas should be brightened. Office furniture manufacturers recently have developed desks with lighter tops to help reduce the brightness contrasts between the work and the desk.



SELF-CHECK 2

Lighting CONTROL

Can you answer each of the questions on lighting control given below?

1. What is a footcandle?

2. List three causes of eye discomfort in office work.

3. Eyestrain may lead to several other disorders. List them.

4. What is task lighting?

5. How may glare be reduced?

6. Explain the following statement: Extreme contrasts of brightness are uncomfortable.

KEY TO SELF-CHECK 2

Lighting Control

1. Light is measured by footcandles. A footcandle is the amount of light produced by a candle at a distance of one foot.

2. a. Poor light
   b. Glare
   c. Extreme contrasts of brightness

3. Eyestrain may lead to muscular tension, eye fatigue, and an increased blinking rate.

4. Task lighting is providing extra light on the work such as a lamp on the desk.

5. Glare is reduced by removing or shielding the unwanted light. This task may be done by these methods.
   a. Closing draperies
   b. Using tinted glass for windows
   c. Using matte surfaces on desks
   d. Repositioning shades
   e. Using different light fixtures
   f. Moving the worker

6. It is difficult to look at a bright surface and then look at a dark surface. The eyes must adjust as they move from the bright to the dark. This action causes eyestrain.

NOISE CONTROL

A noisy office makes concentration difficult and gives rise to emotional stresses which lead to less concentration, more errors, and more trips to the restroom to get away from it all. High levels of noise may impair hearing, cause fatigue, and increase blood pressure which can lead to heart attacks.

Office work is handled by efficient, but noisy machines. With the trend toward the open office, the noise problem has been compounded. The greater use of glass and hard plastic surfaces hasn't helped, either. Any smooth, hard surface causes sound reflection and echoes.

The loudness of sound is measured in decibels. The scale starts with zero at the threshold of normal hearing. A whisper is about 10 decibels, the average conversation about 50, and a rushing subway train about 100 decibels. The nervous system begins to react and hearing impairment can take place at 70 decibels. Comfortable sound in an office would be 40 to 55 decibels. Most word processing and data processing printers produce noise in the range of 65 to 75 decibels.

Noise in an office may be reduced in two ways: quieting the noise at its source, and treating the office interior to keep the remaining sounds from traveling.

Equipment may be partially enclosed with additional panels or screens absorbing the noise at its source. Placing equipment on sound-absorbing pads will help reduce the noise caused by the machines. Acoustical covers are available for most modern typewriters and printers. Plants near equipment can also lend a silencing effect.

Anything soft absorbs sound waves. Carpeting is the preferred floor covering for reducing noise, but rubber, asphalt and cork tile do have some absorption qualities. Carpeting used in offices with equipment should be grounded. Grounded carpeting has wires woven into it which eliminates shock and decreases equipment malfunction.

Draperies and wall coverings made of materials such as fiberboard, fabrics, and cork absorb sound. However, concrete, plaster, and glass reflect sound rather than absorb it. If partitions are used in open offices, they should be made of a sound-absorbing material. Acoustical ceilings are an essential part of any well-planned office interior.

Furniture made of wood and plastic absorbs more noise than that made of metal. Upholstered chairs also contribute to sound absorption.

Office workers themselves create noise. Some noise may be eliminated by rearranging the layout so that employees who work together a great deal are near each other and less walking is required. Workers can be instructed to talk in low tones and to restrict personal conversations to break times.

Some offices attempt to cover up the noise by using a "masking" sound. The most popular masking sound is Muzak, music programs some call "doctor's office music." Even though the music is played very softly, it helps to cover some of the noise in the office.

SELF-CHECK 3

Noise Control

Test your knowledge of noise control by answering each of the following questions.

1. List three results of high-level noises.

2. What can be done to reduce the noise caused by office machines?

3. List four objects in the office that absorb sound.

4. What type of floor covering is best suitable for absorbing noises?

5. How is the loudness of sound measured?

KEY TO SELF-CHECK 3

Noise Control

1. a. Increased blood pressure
   b. Fatigue
   c. Impaired hearing

2. a. Place the machines on sound-absorbing pads.
   b. Place acoustical covers on the machines.
   c. Place partitions or screens around the equipment area.

3. a. Draperies
   b. Partitions or screens
   c. Upholstered chairs
   d. Wooden furniture
   e. Acoustical ceilings

4. Carpeting

5. The loudness of noise is measured in decibels.

AIR CONTROL

Air conditioning is the process of treating air to control its temperature, humidity, cleanliness, and circulation. We are used to associating "air conditioning" with only the cooling aspect, yet it applies equally to heating or cooling.

Temperature of the air, its circulation, and the humidity of the air all work together. The proper level of all three is required for comfort. When the office gets too hot, drowsiness slows work efficiency. When the office gets too cold, employees are uncomfortable, lose efficiency, and may get sick. Dry and dusty air can cause headaches and "four-o'clock fatigue."

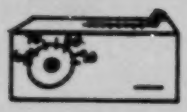
The recommended office temperature is 68 to 70 degrees. This is true, however, only when the proper humidity is maintained because the amount of moisture in the air has a great effect on the comfort of the worker. The combination of temperature and humidity must be considered together. If the relative humidity is high, it makes one feel colder on a cold day and hotter on a hot day.

Air with excessive moisture causes discomfort in breathing and gives a heavy, dull feeling. However, excessively dry air irritates the nose passages and increases nervous tension.

"Relative humidity" is the ratio of the amount of moisture in the air to the total amount the air could hold at the same temperature. The ideal relative humidity for an office is between 40 and 60 percent.

Air should be circulated throughout the office to prevent body heat from rising to the point of discomfort. Air in motion has a cooling effect because it accelerates the evaporation of body moisture. The air motion should be gentle and not drafty. Fans are helpful if offices do not have central ventilation systems.

Not only must the air in the office be maintained at the proper temperatures, be properly circulated, and contain a comfortable relative humidity; it also must be kept clean and free of dirt, dust particles, and odors. These can be harmful to employees' eyes, noses, and lungs. Eyes irritated by dirt and dust create reading difficulty which leads to headaches and fatigue. Dust particles can also cause magnetic equipment to malfunction.



SELF-CHECK 4

Air Control

Can you answer each of the questions on air control given below?

1. Of what four factors does air conditioning include the control?

2. What is the recommended temperature level for offices?

3. Define relative humidity.

4. Why is air circulation important?

5. What may result from breathing dirty or dusty air?

KEY TO SELF-CHECK 4

Air Control

1. a. Temperature
   b. Humidity
   c. Circulation
   d. Cleanliness

2. 70°F

3. Relative humidity is the ratio of the amount of moisture in the air to the total amount of moisture the air could hold.

4. Air circulation is necessary to prevent our body heat from rising so that we are uncomfortable.

5. Breathing dusty air can cause headaches and fatigue.

CONTROL OF THE SURFACE ENVIRONMENT

Color

Color affects our emotions which in turn affect our bodily functions. Any shock or eyestrain caused by improper color choices will increase nerve and muscular tension, leading to worker fatigue and headaches. Color-coordinated offices aid morale, efficiency, and productivity and help to reduce tension.

Light colors such as light blue, green, or off-white are essential in offices where close work on white paper is done. These colors seem to calm emotions and decrease tension. Gray colors have the effect of putting workers to sleep. Bright colors such as yellow, red, or orange might be used in a reception area to capture attention, but should not be used where a great deal of detailed work is to be done. If the walls, woodwork, and other fixtures in the office are the same color, a sleepy effect is created.

Certain colors, like yellow, cream, buff, or beige can suggest warmth or stimulate activity. Colors in the blue range suggest coolness, calm, and spaciousness, but they may also depress the emotions. The greens relax nervous tension. Rose, peach, tan and light browns tend to add cheer to a room.

Colors can make an area seem larger or smaller. Light colors make small areas seem larger, while dark colors would make areas seem smaller.

Colors can be used to reduce accidents and to improve conditions. It has been found that injuries have been reduced since machines were color-coded to accent dangerous features. Bright colors for corridors and stair wells can reduce falls.

Floor Coverings

Several classes of floor coverings are available: wood, stone, tile, and carpeting. Hard-surfaced coverings such as stone or tile have been used to withstand heavy traffic in areas such as reception centers.

In the past few years, however, there has developed a preference for carpeting all areas of the office. Carpeting creates a quiet, relaxed atmosphere in which to work. It also creates a feeling of luxury which enhances worker satisfaction. Carpeting is much more comfortable to walk on, which reduces fatigue. It is also safer to walk on than slippery, hard-surfaced tile or concrete. Carpeting helps to reduce noise and is easier to maintain than other types of floor coverings.

SELF-CHECK 5

Control of the Surface Environment

Answer each of the following questions fully.

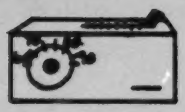
1. Explain the effects of the following colors on workers.
   a. Greens
   b. Grays
   c. Blues
   d. Strong and bright colors
   e. Light colors

2. Give two examples in which colors can be used to reduce accidents.

3. How can you make a large room appear smaller?

4. What types of floor coverings are used in offices?

5. Which type of floor covering would you recommend to be used in an office? Explain why.



KEY TO SELF-CHECK 5

Control of the Surface Environment

1. a. Greens relax nervous tension.
   b. Grays seem to make workers sleepy.
   c. Blues suggest calm and spaciousness.
   d. Bright colors capture attention and seem to encourage creativity.
   e. Light colors calm emotions and decrease tension.

2. a. Bright colors in hallways and stair wells can reduce falls.
   b. Bright colors on dangerous machines help reduce injuries.

3. Use dark colors to make a room appear smaller.

4. Stone, tile, and carpeting are used as floor coverings in offices.

5. Carpeting is more comfortable to walk on, is safer, and helps reduce noise.

ASSIGNMENT SHEET

1. You are supervisor of a department in an older building which was designed with the traditional office layout. Glass partitions are used between offices and workstations. The ceilings are not treated with any type of acoustical material. The floors are covered in tile. Noisy machines as well as the voices of workers trying to be heard above the noise create an atmosphere of discord in the office. The workers in your department complain of fatigue and headaches. What can you do to improve the sound conditions in the office?

2. Your office is in a new glass building. The windows in the building are sealed to conserve energy. The workers in your office complain of sore throats and other problems related to poor circulation, even though there is automatic temperature control in the office. What can be done to correct the problem?

3. The employees in the office in which you work complain of eyestrain and headaches. The trouble is due to the harsh lighting, glaring texture of the walls and desks, and bright colors. What can be done to correct the trouble?

4. Design an office layout for the sales department of an insurance company. Include space for a reception area, three agents, and a secretary. The receptionist and secretary each have typewriters. Each agent has a computer terminal. There is one computer printer available for use by everyone. A copy machine is also available. Include windows, doors, and light fixtures. Specify colors and floor coverings and allow for proper lighting and noise control.

TEST

Multiple Choice: Choose the correct answer to complete each statement. Write the letter of the correct choice on the line before that statement.

_____ 1. The volume of sound is measured in
- a. Footcandles
- b. Decibels
- c. Degrees
- d. Acoustics

_____ 2. The recommended climate for an office is _____ degrees with _____ percent humidity.
- a. 78, 60
- b. 65, 50
- c. 50, 78
- d. 70, 50

_____ 3. Furniture that combines storage and work surfaces and can be rearranged is called
- a. Modular furniture
- b. Modern furniture
- c. Traditional furniture
- d. Open furniture

_____ 4. Lighting that shines directly on the work surface is called
- a. Direct lighting
- b. Indirect lighting
- c. Task lighting
- d. Workstation lighting

_____ 5. In order to make a small room appear larger, the walls should be painted
- a. Red
- b. Orange
- c. Green
- d. Beige

_____ 6. The quantity of light is measured in
- a. Footcandles
- b. Decibels
- c. Degrees
- d. Intensity

_____ 7. The best surface for a desk on which close paperwork is done would be
- a. Dark, glossy surface
- b. Light, matte surface
- c. Dark, matte surface
- d. Light, glossy surface

_____ 8. Which of the following surfaces would absorb the best?
a. Tile
b. Glass
c. Fabric
d. Concrete

_____ 9. Air conditioning includes
a. Temperature
b. Circulation
c. Humidity
d. All of the above

_____10. Continuous exposure to high levels of noise may cause
a. High blood pressure
b. Thrombophlebitis
c. Improved hearing
d. All of the above

Essay: Answer fully each of the following questions.

1. Describe an open office. Include three problems that could be caused by this plan.

2. List the three factors considered in proper lighting control. Explain each.

3. Why is the quality of air so important in an office?

4. How does color affect the attitude and work of employees?

5. What can be done to control noise in an office? List at least four methods.

KEY TO TEST

Multiple Choice

1. b
2. d
3. a
4. c
5. d
6. a
7. b
8. c
9. d
10. a

Essay (Answers will vary.)

1. An open office uses partitions and screens instead of permanent walls. There are few private offices. All workstations are situated in a large area and divided only by the partitions. Workstations are usually made of modular furniture. Employees in open offices complain off too much noise, too many distractions, too little personal space, and too little privacy.

2. a. Light quantity is the intensity or the brightness of light. The quantity of light necessary depends on the type of work being done.
   b. Elimination of glare which is intense light such as direct sunlight or light reflected from a shiny surface is important. Glare causes the pupils of the eyes to contract and expand as the worker looks at and away from the source of the light. This action is fatiguing and causes eyestrain and headaches.
   c. Proper contrasts of brightness are the differences in brightness of several surfaces within eyesight. Looking at a dark and a bright surface causes eyestrain because of the adjustment the eyes must make as they move from the light to the dark surface.

3. When the office is too hot or too cold, workers are uncomfortable and may get sick. The proper humidity is also necessary for comfortable breathing. Body heat may rise and cause workers to be uncomfortable if air is not circulated in the office. The air must also be free of dirt and dust to prevent headaches and fatigue.

4. Color affects workers' emotions which affect workers' health. Improper colors can increase nervous tension and cause fatigue and headaches which lead to decreased efficiency and productivity.

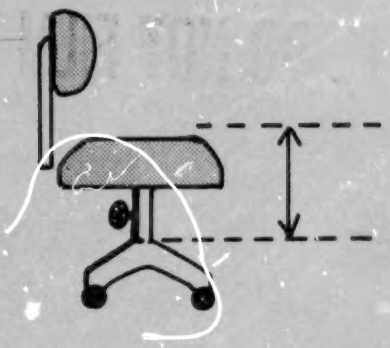
5. Noise may be controlled by using sound-absorbing materials in the office such as carpeting, draperies, and cork partitions. Noise from equipment may be lessened by placing machines on sound-absorbing pads, using acoustical covers, and enclosing the machines with acoustical screens. Moving office workers may eliminate some moving about and excessive talking by employees.

OPEN OFFICE LAYOUT

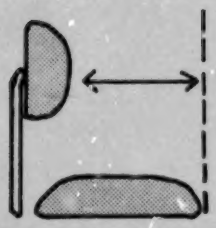
TM #1
Open Office Layout
CAREFUL DESIGN OF OFFICE ENVIRONMENT

POSTURE CHAIRS CAN BE ADJUSTED IN THREE BASIC WAYS.

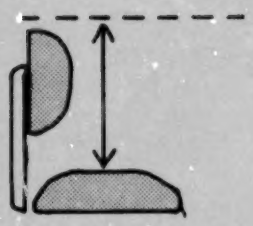
1. A seat adjustable in height



2. A seat adjustable in depth



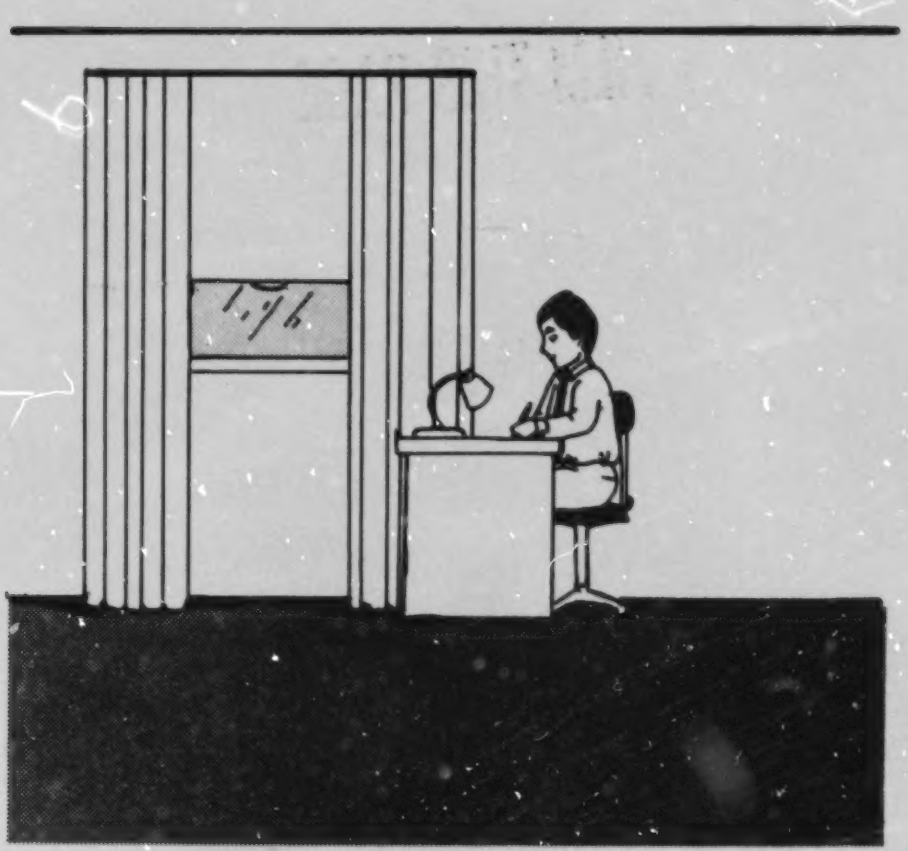
3. A backrest adjustable vertically



HOW TO SIT CORRECTLY

1. Keep your neck and back straight.
2. Use a footrest if necessary to keep your knees higher than your hips.

GOOD LIGHTING CONSISTS OF:



1. Proper amount of light

2. Elimination of glare

3. Proper contrasts of brightness

WAYS TO CUT NOISE

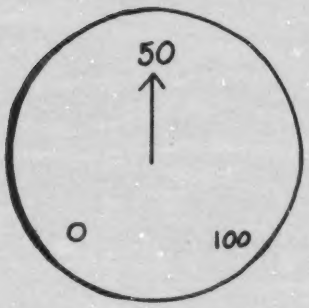
1. Use acoustical panels or partitions.
2. Use acoustical ceiling surfaces.
3. Use acoustical covers on machines.
4. Place pads under typewriters.
5. Use carpeting in the office.
6. Separate workers who continually carry on personal conversations.

How many other ways to cut noise can you think of?

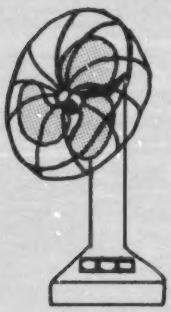
AIR CONDITIONING INCLUDES:

1. Temperature

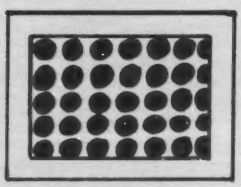
2. Humidity



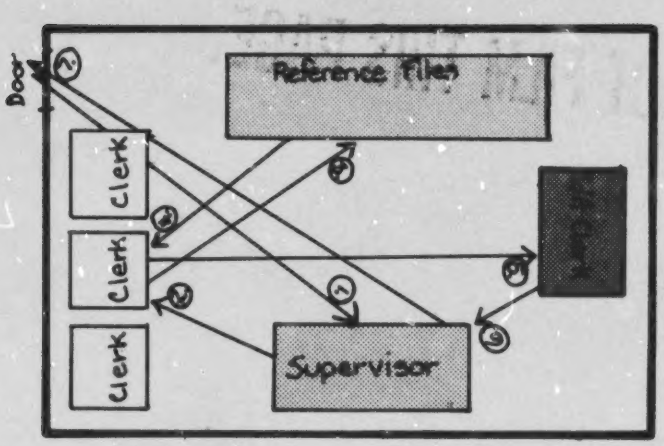
3. Circulation



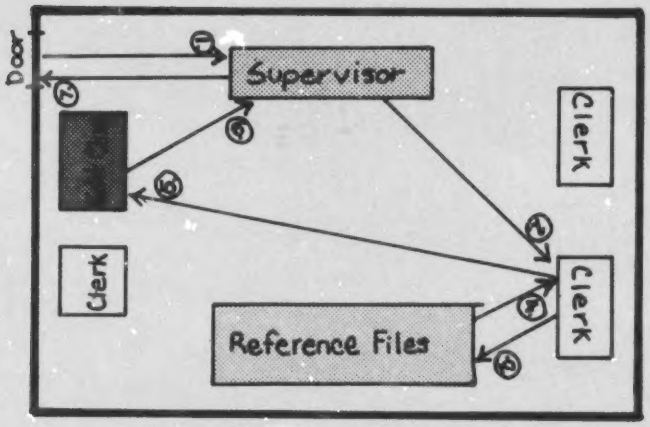
4. Cleanliness



POOR WORK FLOW



EFFECTIVE WORK FLOW

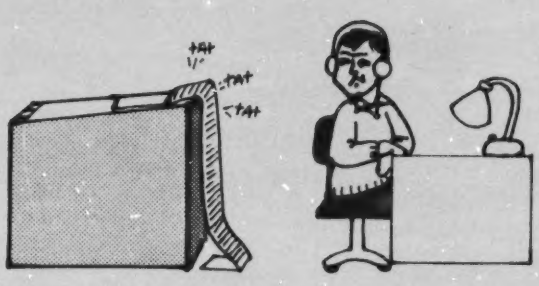


TM #7
Work Flow
CAREFUL DESIGN OF OFFICE ENVIRONMENT

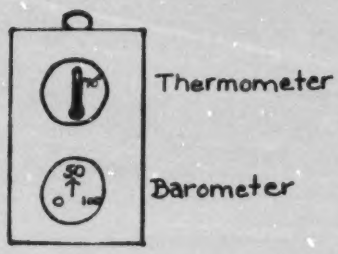
A GOOD OFFICE ENVIRONMENT INCLUDES

1. LIGHTING CONTROL

2. NOISE CONTROL

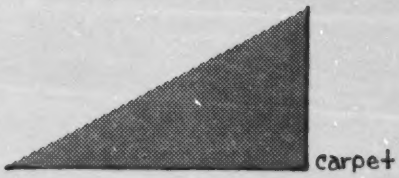


3. AIR CONTROL

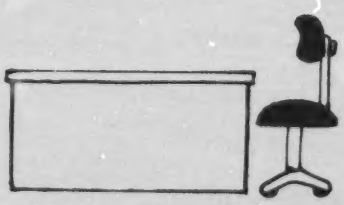


4. PROPER COLORS

5. PROPER FLOOR COVERING



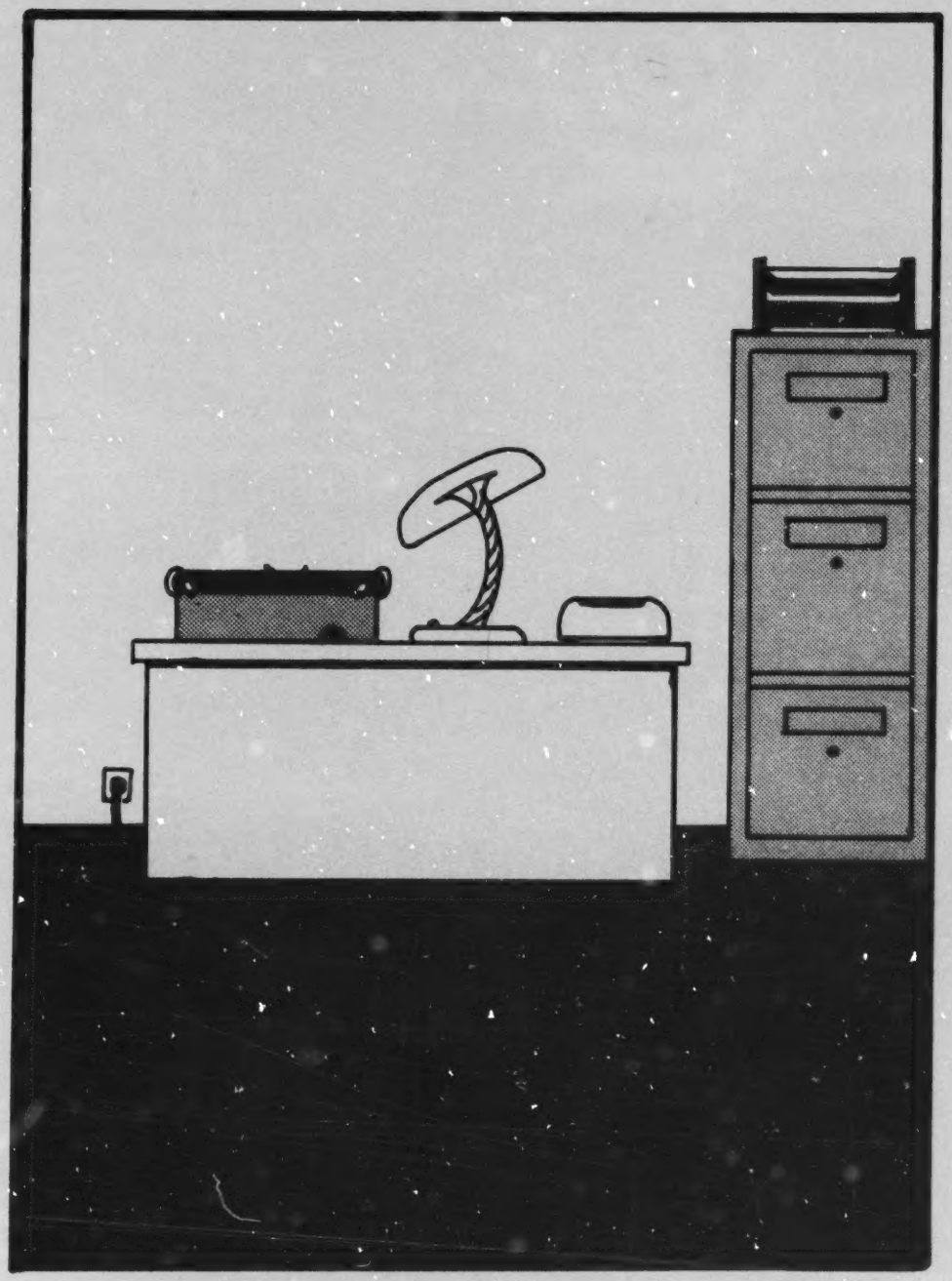
6. PROPER FURNITURE



CAREFUL DESIGN OF OFFICE ENVIRONMENT: Bulletin board item

Pictures taken from magazines or catalogs may be used in place of those drawn on reverse side.

SAFE USE AND MAINTENANCE OF OFFICE EQUIPMENT



LESSON TOPIC: SAFE USE AND MAINTENANCE OF OFFICE EQUIPMENT

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to

1. Explain the importance of proper wiring and grounding of office equipment.
2. List three causes of trips and falls in an office.
3. List three rules for the proper use of file cabinets.
4. Describe the potential hazards caused by improper placement or use of typewriters.
5. Explain the potential danger related to photocopiers.

RESOURCES

Overhead projector
Transparencies
Electrical plug with a ground
Electrical cord with frayed wires (if possible)
File cabinet
Paper cutter
Typewriter

LEARNING ACTIVITIES

1. Have the student read the Student Information Sheet on Causes of Accidents.
2. Discuss points in the Information Sheet using Transparencies #1-4.
3. Demonstrate the following points using all equipment available.
   a. Carefully pull out the top two drawers of a file cabinet to show the manner in which the cabinet may fall forward.
   b. Show the student a plug with a ground. Explain the importance of the ground wire.
   c. Demonstrate unplugging a cord by pulling on the plug--not the cord. (If possible, bring to class an old, frayed cord to show the danger of pulling the cord.)
   d. Show how easily a typewriter may slide off a desk if not kept on a non-skid surface or pad.
   e. If a paper cutter is available, show students how to lock the blade down and explain the importance of locking the blade.
4. Have students complete the Assignment Sheet.
5. Take students on a field trip to an office and have the safety officer of the company speak to them.
6. Evaluate the student's mastery of the lesson.

EVALUATION: Mastery of the learning objectives for this lesson will be determined by labeling all errors in the picture given with 100% accuracy and correctly stating the reason each situation is wrong and the manner in which it should be corrected.

OUTSIDE CLASS ACTIVITIES: Have students talk with someone who works in an office and ask the person these questions.

1. Have there been any accidents in your office caused by improper use of office equipment? If so, explain.

2. Does your office have any rules for the proper use of equipment? If so, list the rules.

CAUSES OF ACCIDENTS

Many people ask, "How can anyone get hurt in an office?" The answer is, "It's easy--accidents can happen anywhere."

People in offices trip over electrical cords, fall down stairs, run into open file cabinet drawers, and slip on wet floors. These accidents result in strains and sprains, cuts and bruises, and broken and fractured bones.

Office accidents are usually less frequent and less severe than accidents occurring in factories and during construction work. Nevertheless, all office accidents are painful and costly to those involved.

Trips and falls are the number one cause of accidents in the office. Precautions should be taken to prevent any trips or falls. Electrical cords and telephone lines should not be placed in walkways. They should be kept under or behind furniture and equipment or taped down. Floor boxes for electrical outlets should be covered by furniture and not left in aisles.

Electrical cords may also present hazards other than tripping. Electricity presents a shock hazard when machines are not properly grounded. "Grounding" means connecting a machine to the ground through a third wire in the electrical cord. That is the third prong you see on most electrical plugs. If equipment has a short circuit or becomes an electrical hazard, the electricity will flow through the ground wire, preventing an electrical shock. If a machine which is not properly grounded malfunctions, electricity would flow through the equipment and shock anyone who touches it.

Electrical hazards also result from plugging too many machines into the same outlet, overloading the outlet. Adapters that increase the number of available outlets should not be used without checking with a certified electrician.

Electrical cords should be pulled from the outlet by the plug, not the cord. Pulling the cord continually will fray the wires going into the plug and eventually cause an electrical shock. Worn cords should be replaced immediately.

Improper use of file cabinets can cause dangerous accidents. File cabinets should be loaded from the bottom up. If the top drawers are full and the bottom drawer empty, the cabinet may tilt over when the top drawer is pulled out. File cabinets should be secured to the floor, to adjacent cabinets, or have weights attached to the base or back of the cabinet.

Only one drawer of a file cabinet should be opened at one time to prevent the cabinet from tilting and falling over. File drawers should be closed when not in use to prevent someone from walking into or tripping over the drawer.

Typewriters do not seem to pose a potential hazard, but if not bolted down or placed on a non-skid surface or non-skid pad, they could fall off the desk causing a foot or leg to be broken. Electrical shock could also occur from placing fingers, hair, or jewelry inside the typewriter while it is on. Turn off typewriters and all other machines before attempting to get something out of the machine or before cleaning it.

Photocopiers can produce dangerous gases such as ozone, a colorless gas with a peculiar odor. Ozone is a severe irritant to the lungs, nose, and throat. The levels of ozone produced by photocopiers are only dangerous if the photocopier is placed in a room with poor ventilation. Therefore, copiers should be placed in open, well-vented areas so the exhaust is allowed to escape.

Many other precautions should be taken when using office equipment. Some of those precautions are mentioned here.

1. Loose clothing and jewelry should not be worn if working around moving machinery such as printing machines or data processing equipment.

2. All machines and other electrical devices should be turned off when not in use.

3. Paper cutters should be guarded so that it is not possible for users to place their fingers under the cutting edge when the knife is coming down. The blade should be down and locked when not in use.

4. Before cleaning electrical equipment, it should be off or the plug should be pulled.

5. Machines should never be stacked on top of each other.

ASSIGNMENT SHEET

Equipment Hazards: Seek and Find

Directions: Fill in the blanks in the statements below. Find the missing terms in the word search puzzle which follows.

1. When working around moving equipment, _____ and _____ should not be worn.
2. _____ _____ should be loaded from the bottom up to prevent falls.
3. Photocopiers produce dangerous _____.
4. Careless use of electricity may cause a _____.
5. Connecting a machine to the ground through a third wire is called _____.
6. The major causes of accidents in an office are _____ _____ _____.
7. _____ should be placed in well-vented areas.
8. Only one _____ of a file cabinet should be opened at one time.
9. _____ _____ should be kept out of aisles and walkways.
10. _____ increase the number of outlets available from one outlet.
11. Electrical cords should be pulled out by the _____.

L O O S E P J E W E L R Y G A

Y S C H R I T E A V B K A N D

F L L O H E U N D R A S O I T

E L E C T R I C A L C O R D S

R A T K J E W P P R L P E N L

I F A L T S E L O O O I G U L

N D R A W E R R O C O P U O A

G N I H T O L C E S O O L R T

L A S A G R U O N D U T P G T

L S R E T P A D A P T E O S U

A P E X S H O S K I L M P H L

F I L E C A B I N E T S O L P

C R T H I N G D A Y R E L E J

S T E N I B C E L I F C A B I

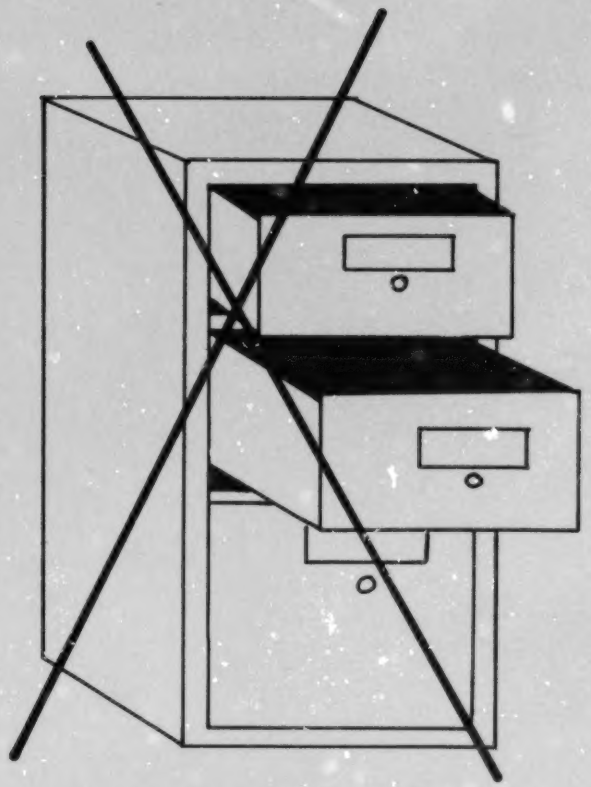
ASSIGNMENT SHEET KEY

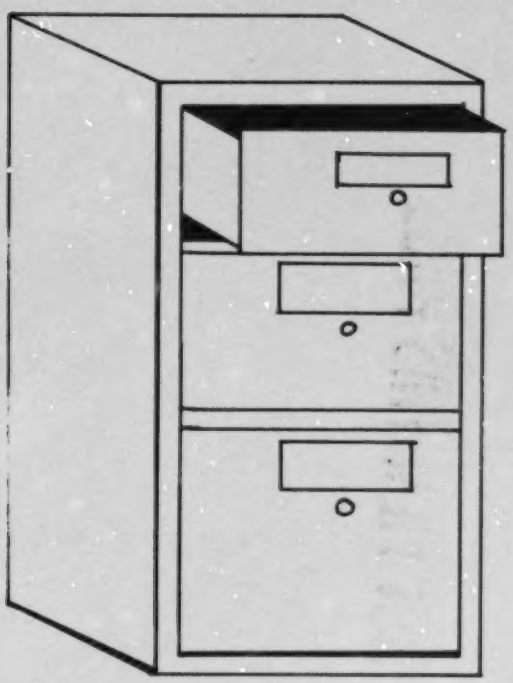
Equipment Hazar 's: Seek and Find

1. Loose clothing, jewelry
2. File cabinets
3. Gases
4. School
5. Grounding
6. Trips and falls
7. Photo copies
8. Drawer
9. Electrical cords
10. Adapters
11. Plug

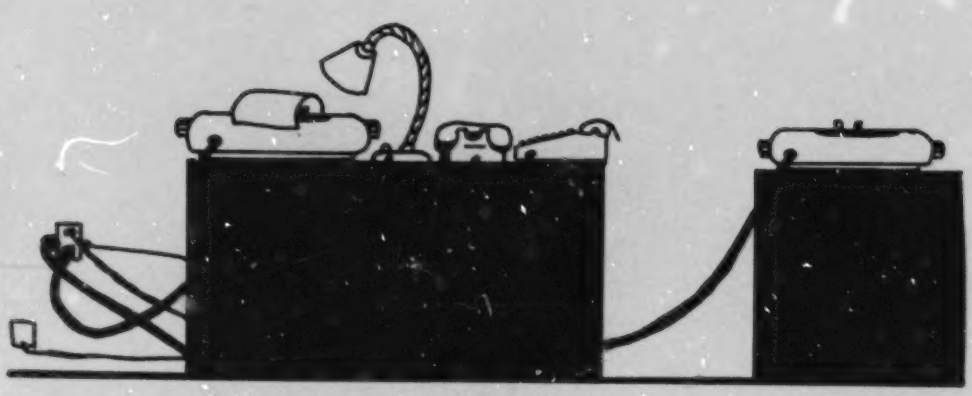
L	O	O	S	E	P	J	E	W	E	L	R	Y	G	A
Y	S	C	H	R	I	T	E	A	V	B	K	A	N	D
F	L	L	O	H	E	U	N	D	R	A	S	O	I	T
E	L	E	C	T	R	I	C	A	L	C	O	R	D	S
R	A	T	K	J	E	W	P	P	R	L	P	E	N	L
I	F	A	L	T	S	E	L	O	O	O	I	G	U	L
N	D	R	A	W	E	R	R	O	C	O	P	U	O	A
G	N	I	H	T	O	L	C	E	S	O	O	L	R	T
L	A	S	A	G	R	U	O	N	D	U	T	P	G	T
L	S	R	E	T	P	A	D	A	P	T	E	O	S	U
A	P	E	X	S	H	O	S	K	I	L	M	P	H	L
F	I	L	E	C	A	B	I	N	E	T	S	O	L	P
C	R	T	H	I	N	G	D	A	Y	R	E	L	E	J
S	T	E	N	I	B	C	E	L	I	F	C	A	B	I

SAFETY WITH CABINET DRAWERS

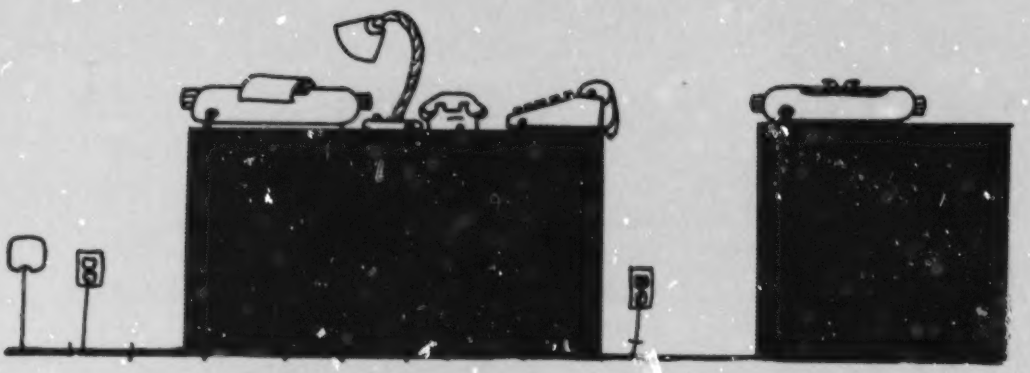




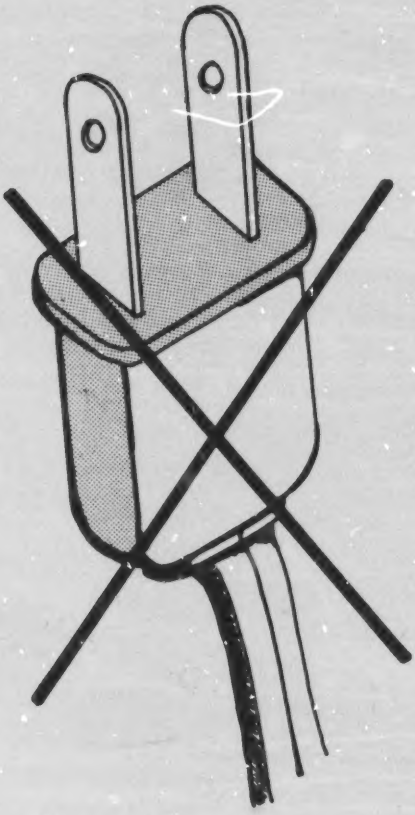
1. Open only one drawer of a file cabinet at a time.
2. Keep all drawers closed when not in use.
3. Do not overload the top drawers and leave the bottom drawer empty or nearly empty.

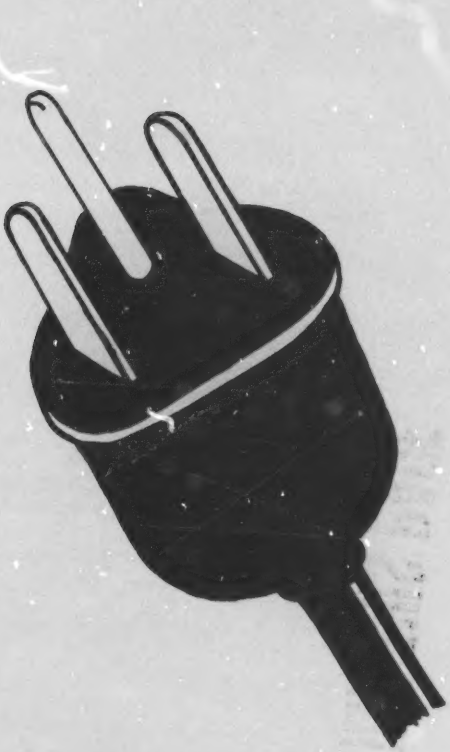


Do not overload outlet.
Do not leave cords in walkways.
Have all loose cords taped or stapled down.

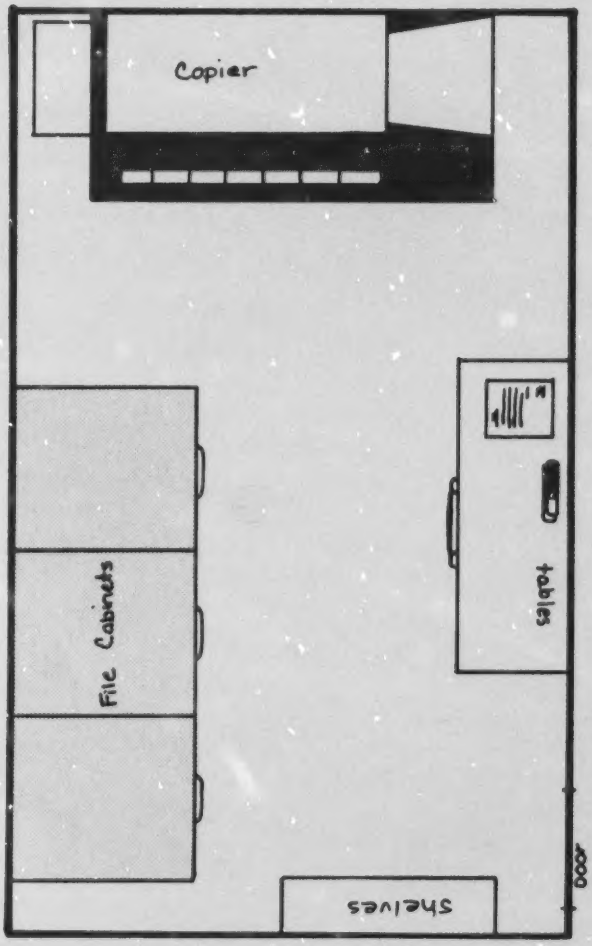


Plug without Ground

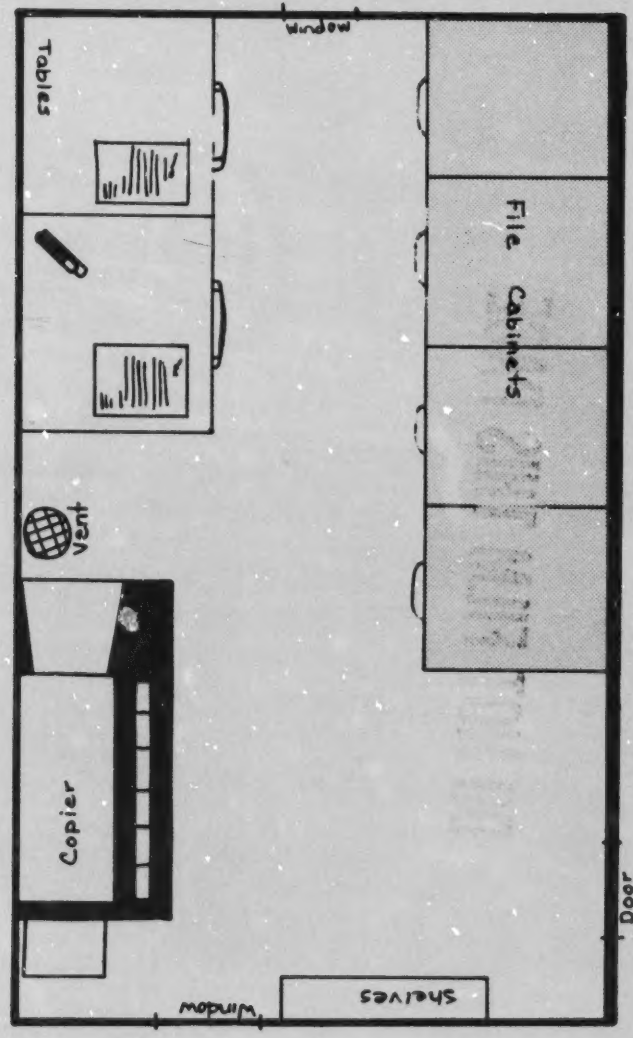




Plug with Ground

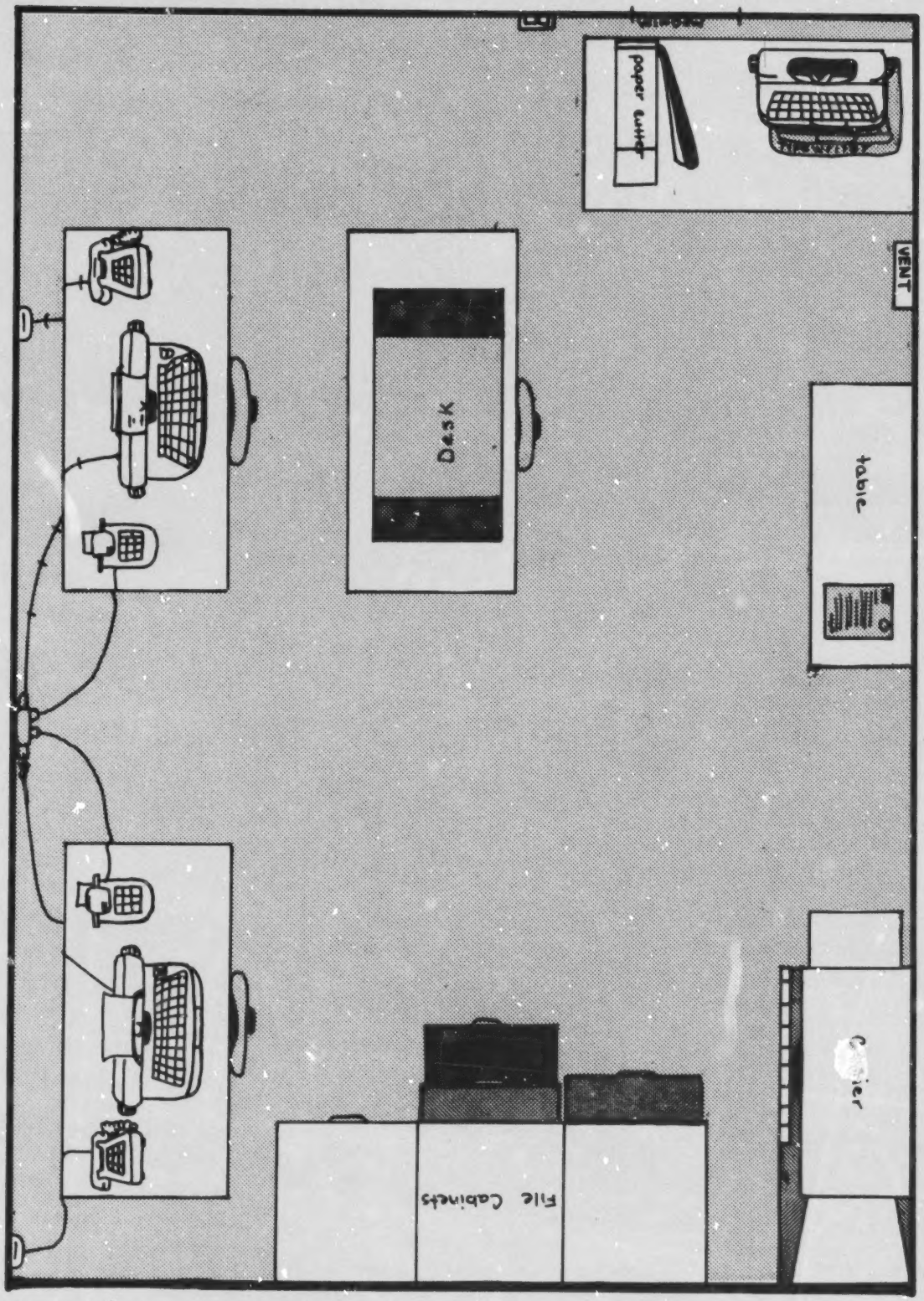

Copier
File Cabinets
Tables
Shelves
Door

D IN WHICH TO PLACE A COPIER?



TM #4
Copiers
SAFE USE AND MAINTENANCE OF OFFICE EQUIPMENT

Locate the hazards!

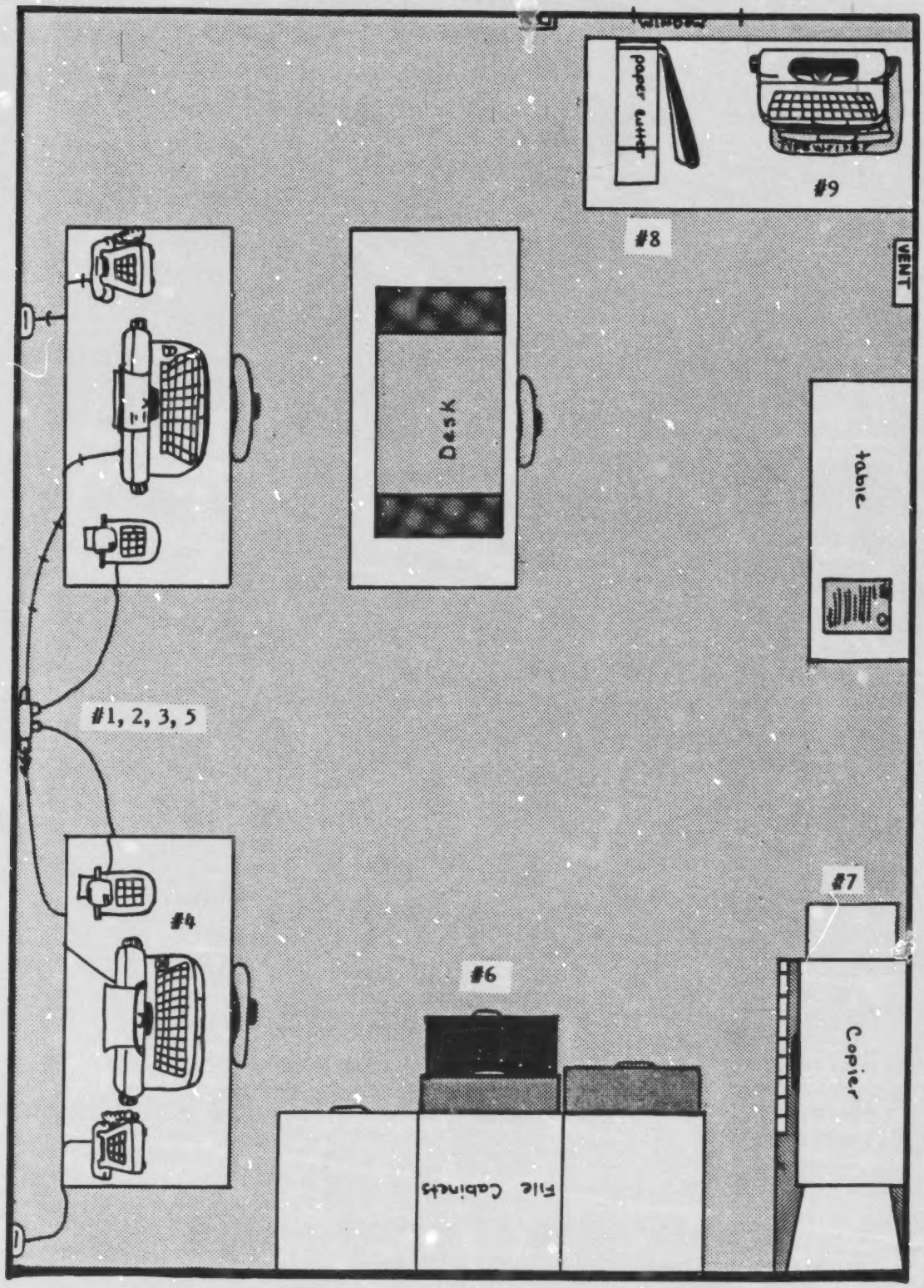


With the help of the instructor, locate nine potential office equipment hazards which are depicted in this drawing. Without assistance from the instructor, explain the danger and suggest a correction for each problem.

KEY

SAFE USE AND MAINTENANCE OF OFFICE EQUIPMENT

Locate the hazards!



SAFE USE AND MAINTENANCE OF OFFICE EQUIPMENT

TEST KEY TO LOCATE THE HAZARDS!

1. A three-prong plug is inserted in a two-prong outlet on the extension cord. The ground prong is exposed.
   Danger: Equipment is not being grounded. Electric shock is possible.
   Correction: Have another outlet installed on the other wall next to the desk on the right.

2. Extension cord is used and wires are in the aisle.
   Danger: Someone may trip over the wire and fall.
   Correction: Have another outlet installed on the wall next to the right desk.

3. Adapter is used in electrical outlet.
   Danger: Outlet is overloaded which could possibly be a fire hazard.
   Correction: 1. Have another outlet installed on the right wall for the equipment on that desk. 2. Plug the clock into the other outlet on the same wall.

4. Typewriter on left desk is on and no one is using it.
   Danger: Possible hazard to anyone walking by and bumping it without realizing it is on.
   Correction: Turn off all equipment when it is not in use.

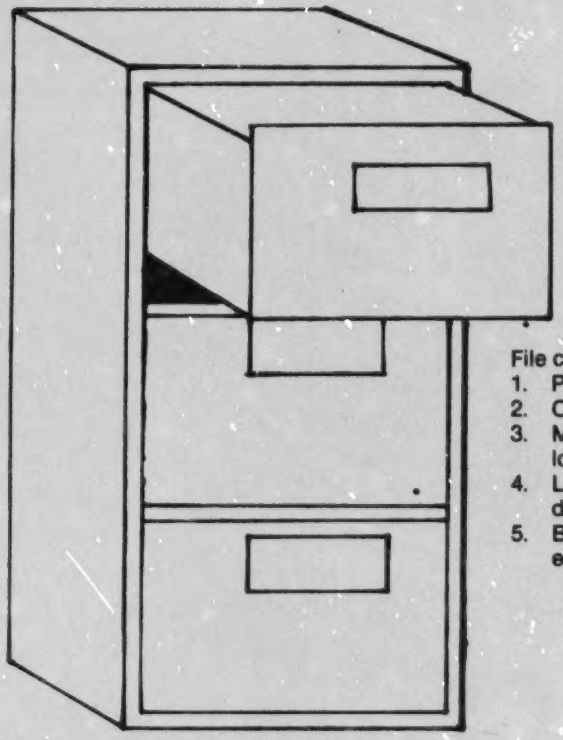
5. Wires on a cord are frayed.
   Danger: Possible fire hazard. Also, anyone touching the wire may be shocked.
   Correction: Replace cord.

6. Two drawers are pulled out of the first file cabinet and are left out.
   Danger: The file cabinet may fall forward on someone.
   Correction: Open only one drawer at a time and close it when you are finished.

7. Copier is placed in small corner away from vents and window.
   Danger: The person running the copies is exposed to fumes.
   Correction: Move copier near window and vent.

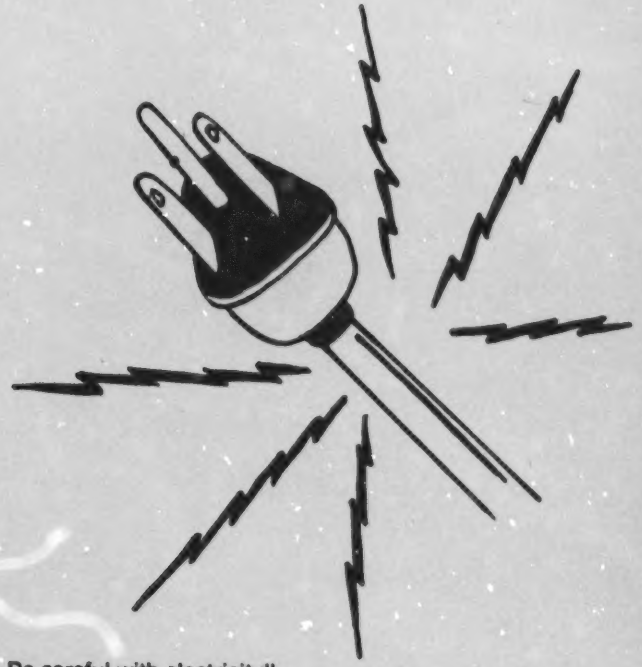
8. Blade is left up on the paper cutter.
   Danger: Someone could accidentally cut themselves.
   Correction: Leave blade in locked position when not in use.

9. A typewriter is left on top of another typewriter on the table in the corner.
   Danger: The top typewriter could fall off and hurt someone.
   Correction: Move one typewriter. Place it on the floor under the table if it is not going to be used.



File cabinets may cause accidents!

1. Pull out only one drawer at a time.
2. Close the drawer when it is not in use.
3. Make certain that each drawer has an equal load.
4. Load an empty cabinet from the bottom drawer to the top.
5. Bolt cabinet to the floor or to adjacent equipment to prevent moving.



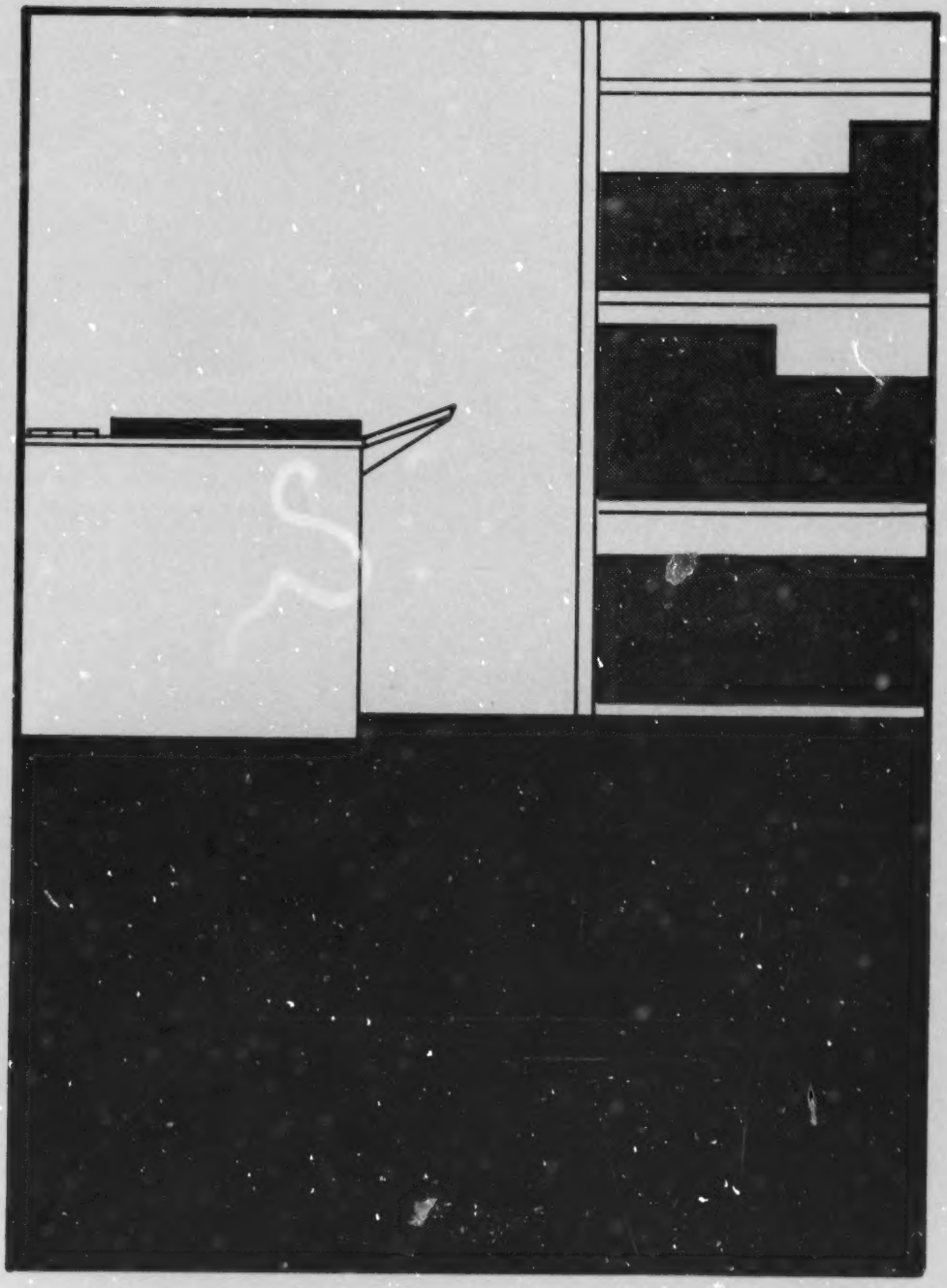
Be careful with electricity!!

1. Always pull the plug—not the cord.
2. Do not leave cords in walkways.
3. Do not use frayed cords.
4. Do not overload outlets.
5. Be sure all equipment is properly grounded.

File Cabinets and Electricity
SAFE USE AND MAINTENANCE OF OFFICE EQUIPMENT

File Cabinets and Electricity Dos and Don'ts: Bulletin board item

APPROPRIATE USE AND STORAGE OF OFFICE SUPPLIES



LESSON TOPIC: APPROPRIATE USE AND STORAGE OF OFFICE SUPPLIES

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to

1. Explain the method for storing office supplies.
2. Explain the safe use of office supplies.
3. Explain the procedure for safely using and storing flammable fluids.

RESOURCES

Overhead projector
Transparencies
Copies of office safety rules
Copies of Assignment Sheet

LEARNING ACTIVITIES

1. Have the student read the Student Information Sheets on Office Safety Rules for ABC Company.
2. Discuss the safety rules, including possible hazards that could result if the rules are not followed. Use Transparencies #1-6 in the discussion.
3. Have the student complete the Assignment Sheet.
4. Have the student evaluate the use of supplies in the classroom.
5. Have the student solve the following problem individually or in groups.

   > An office is short of storage space. Boxes of paper and files are stacked on top of file cabinets and on all available floorspace, including in front of emergency exits and fire extinguishers. This creates a great fire hazard. How could this problem be solved?

6. Evaluate the student's mastery of the lesson.
7. Optional Activity: Before the students arrive for class, provide several examples of potential hazards from improper use of office supplies. For example, have paper and pencils on the floor in the aisles, a razor blade or knife lying on a desk, supplies stacked on top of file cabinets, and several cans of duplicating fluid on one shelf. Ask the students to find all the hazards in the classroom.

EVALUATION: Mastery of the learning objectives for this lesson will be determined by 100% accuracy on a teacher-prepared test. (A suggested test is provided.)

ABC SAFETY MANUAL

Office Safety Rules

Supplies

1. Use caution when folding or handling paper which can cause painful cuts.

2. Moisten the envelope flap with devices made for that purpose, not with the tongue.

3. Use paper clips, staples, and other fasteners designed to fasten paper. Do not use straight pins. Be sure staples are fully closed and use a staple remover when removing staples.

4. Do not use razor blades for cutting paper, sharpening pencils, and various other cutting operations in offices. Using razor blades is prohibited except when they are installed in safety clamps or holders and stored in closed containers to eliminate the hazards of accidental cuts.

5. Use and carry pencils, pen points, scissors, ditto knives, etc., in such a manner that the sharp points cannot cause puncture wounds to the user or others.

6. Keep the work area in proper order. Good housekeeping prevents accidents.

7. Pick up pencils, paper clips, paper, and rubber bands lying on the floor since these items create a fall hazard. Keep your area and aisles free of these hazards. Most accidents in an office are classified as falls.

8. Do not place broken glass in waste paper baskets. Broken glass should be wrapped safely with cloth or stiff material and taped so that no portion of the glass protrudes. Place glass next to the wastebasket for removal by a janitor.

9. Do not use wastebaskets as ashtrays. Place cigarettes well inside ashtrays so that as they burn down they will not fall out. Never lay cigarettes on desks.

10. Store materials in an orderly fashion in cabinets or in rooms designed for that purpose. Material that presents a falling hazard should not be stored on window sills or radiators. Keep the tops of book cases and filing cabinets (over three feet high) clean. Do not use these as storage areas.

11. Do not store supplies in front of emergency equipment.

Flammable Fluids

1. Store all flammable office fluids away from any source of heat.
2. Store no more than one full can of fluid in one cabinet.
3. Do not use flammable fluids near an open flame, fire, lighted match or cigarette.
4. Use flammable fluids with adequate ventilation and avoid inhalation of the vapor.
5. Dispense flammable liquids for office machines from safety can once the vendor's container has been opened. Also, store the flammable liquids in a safety can.
6. Do not place empty fluid containers in trash cans.

ASSIGNMENT SHEET

1. Assume you are the safety officer of a large company. You are to speak to a group of new office employees tomorrow. Write the part of your speech covering the safe handling of office supplies.

2. Two secretaries near you are very poor housekeepers. They carelessly leave papers, paper clips, and other items lying all over their desks and the areas around their desks. What, if anything, should you say to these secretaries?

3. The county fire marshall is checking your office tomorrow for fire hazards. List the things you think the marshall will notice.

4. Someone in your office drops and breaks a glass water pitcher. Explain how the broken glass should be handled.

TEST

Essay: Answer fully each of the following questions.

1. Why should cigarette ashes not be thrown in a wastebasket?

2. How should objects with sharp points be carried?

3. Should razor blades be used in an office? Explain your answer.

4. Explain how broken glass should be handled.

5. How can paper cause harm to office workers?

6. Explain how flammable fluids should be stored.

7. Where should flammable fluids be used?

8. List three rules for the storage of office supplies.

9. Why is good housekeeping important?

10. How should papers be fastened together?

KEY TO TEST

1. If some of the ashes are still burning, paper in the wastebasket could catch on fire.

2. Objects with sharp points should be carried with the points down.

3. Yes, if they are kept in safety holders and covered when not in use.

4. Broken glass should be wrapped in cloth or heavy paper and taped to prevent anyone from being cut. The package should be placed next to the wastebasket instead of inside the basket.

5. Paper can cause painful cuts when handled carelessly. Also, envelopes may cut the tongue if moistened in that manner.

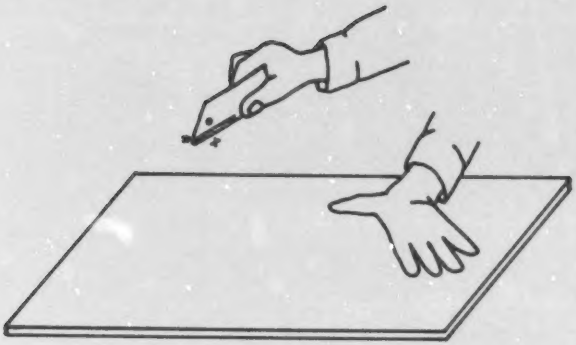
6. Flammable fluids should be stored away from heat. No more than one full can of fluid should be stored in any one cabinet.

7. Flammable fluids should be used with good ventilation and away from fire, lighted matches, or cigarettes.

8. a. Do not store supplies in front of emergency equipment.
   b. Store materials in an orderly fashion in cabinets or rooms designed for that purpose.
   c. Do not stack supplies on top of filing cabinets or book cases.

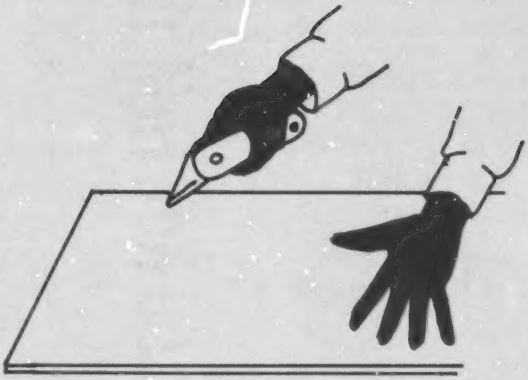
9. Paper, pencils, and other objects left lying on the floor can cause falls. Razor blades, knives, or scissors left under papers on a desk could cause cuts.

10. Papers should be fastened with staples or paper clips.



Incorrect

(cutting with a razor blade)

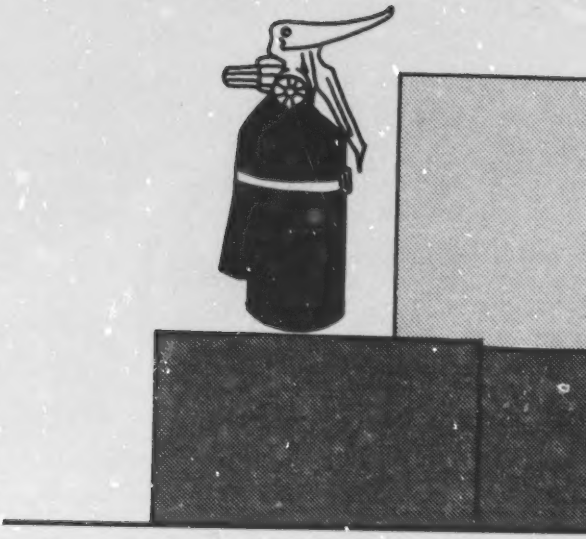


Correct

(cutting with a razor blade in a safety holder)

What danger could this action cause?

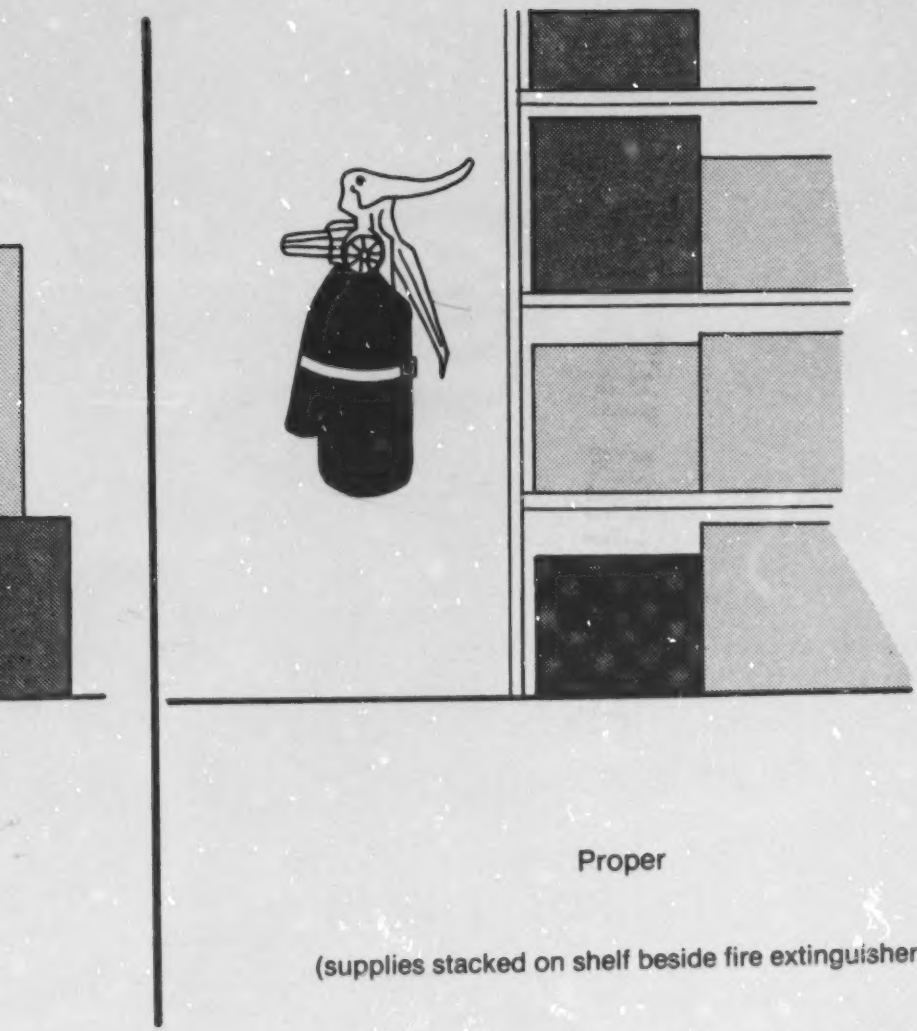
TM #3
Dangerous Action
APPROPRIATE USE AND STORAGE OF OFFICE SUPPLIES



Improper

(supplies stacked around fire extinguisher)

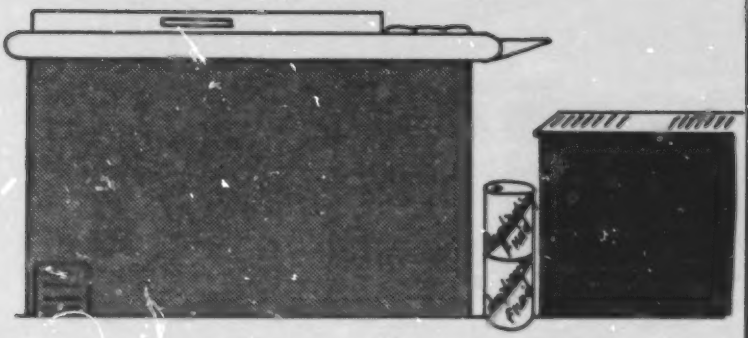
STORAGE



Proper

(supplies stacked on shelf beside fire extinguisher)

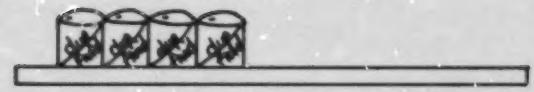
TM #5
Storage
APPROPRIATE USE AND STORAGE OF OFFICE SUPPLIES

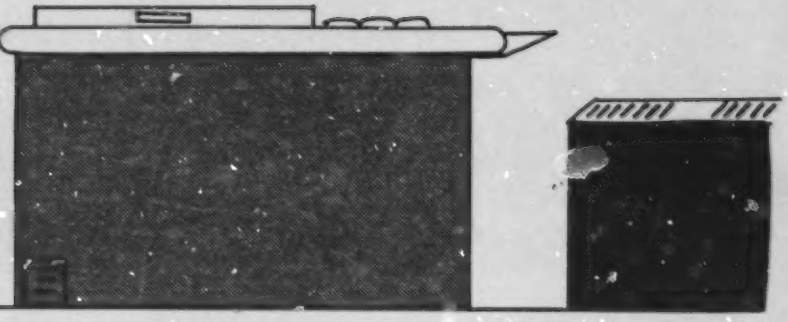


Incorrect

(duplicating fluid stored beside radiator)

AGE





Correct

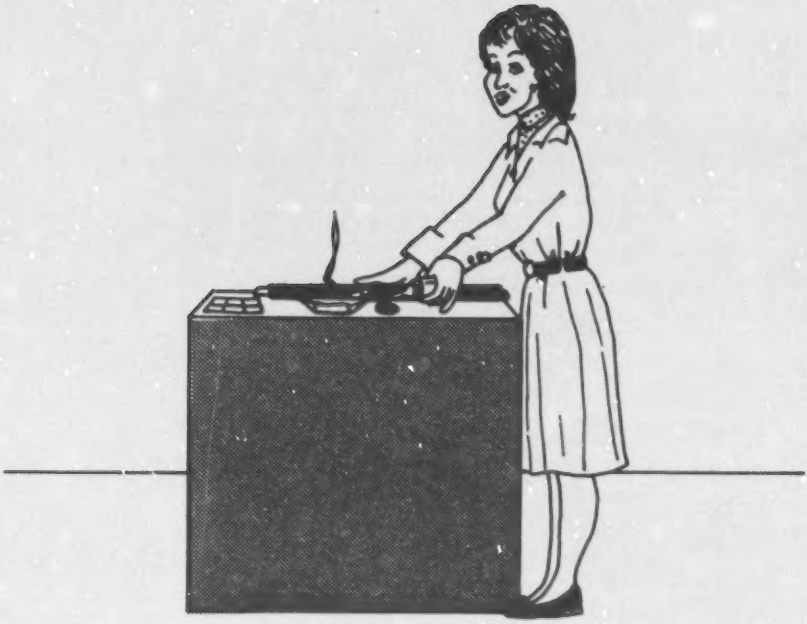
(duplicating fluid stored away from radiator)

Incorrect

(moistening envelope with tongue)

Correct

(moistening envelope with water roller)



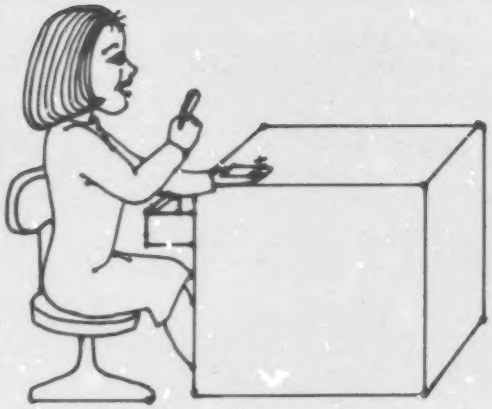
Dangerous

(smoking while adding toner)

Safe

(no cigarettes at copier)

If you don't use office supplies correctly, these mishaps could happen to you....



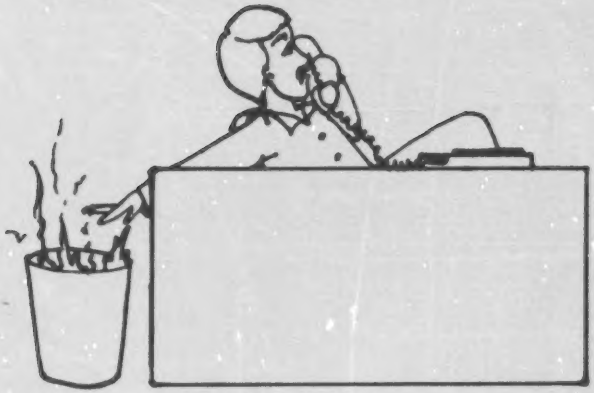
1. Worker cuts finger on uncovered razor blade while reaching for a pencil in the desk drawer.

2. Employee hands papers to employer. The papers are fastened with a straight pin. He sticks his finger and it bleeds. He gives the employee a very disgusted look.

3. Worker with cigarette in his mouth is running copies on a duplicator. The ashes fall into the machine and it blows up.

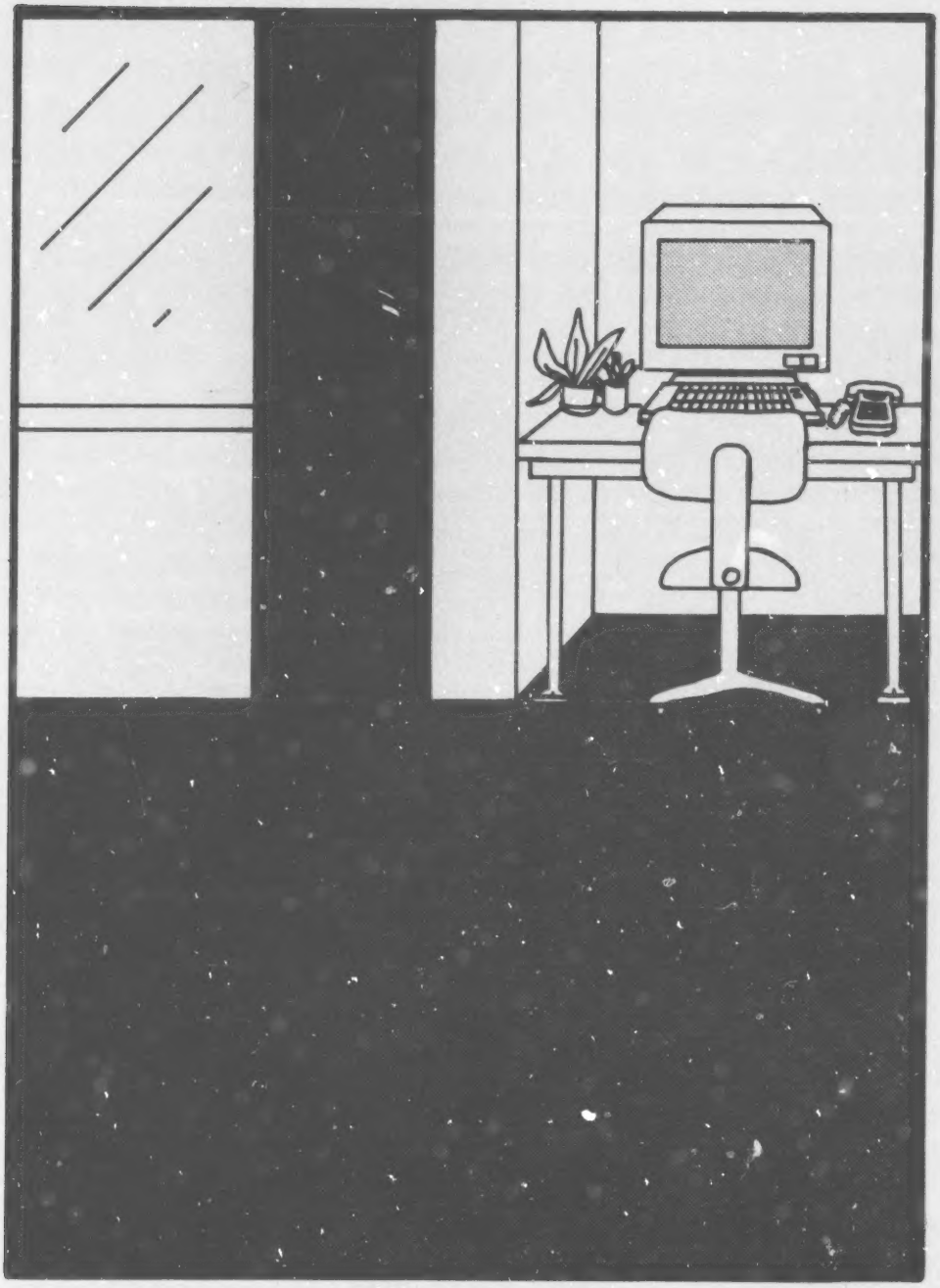
4. Worker is licking envelopes with her tongue. She cuts her tongue and it bleeds onto the envelope.

5. Worker flicks his cigarette ashes into the trash can beside his desk instead of using the ashtray. The papers in the trash can catch on fire.



APPROPRIATE USE AND STORAGE OF OFFICE SUPPLIES: Bulletin Board Item

PRECAUTIONS FOR USE OF HIGH TECHNOLOGY EQUIPMENT



LESSON TOPIC: PRECAUTIONS FOR USE OF HIGH TECHNOLOGY EQUIPMENT

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to

1. List 15 precautions in taking care of software.
2. List ten tips in selecting the proper equipment and furniture.
3. List ten problems that can be caused by high technology equipment.

RESOURCES

Overhead projector
Any high tech equipment (word processors, computer, microcomputers)
Software (disks) and examples of software storage (vertical tray)
Magazines, newspapers, office furniture and supply catalogs, brochures, etc. related to office/high tech equipment (If the instructor does not have many catalogs make copies of those particular pages that would be useful to the students in completing the project.)
Construction paper or poster paper (if desired), glue or tape, scissors and markers (Students may be required to supply their own materials.)

LEARNING ACTIVITIES

1. Have the student read the Student Information Sheets which are divided into three units.
2. Discuss information given on the Student Information Sheets.
3. View Transparencies #1-4 as they relate to the discussion.
4. Demonstrate proper handling of equipment and software.
5. Show the student pictures of poorly-placed equipment and of well-placed equipment. Visually reinforce the discussion.
6. Have the student complete Assignment Sheets 1 and 2.
7. Evaluate the student's mastery of the lesson.

EVALUATION: Mastery of the learning objectives for this lesson will be determined by these requirements. (A suggested test is provided.)

1. List with 90% accuracy ten tips in selecting the proper equipment and furniture.

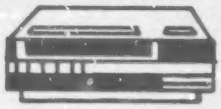
2. List with 100% accuracy 15 precautions in taking care of software.

3. List with 90% accuracy ten problems that can be caused by high tech equipment.

OUTSIDE CLASS ACTIVITIES (PRE AND POST)

1. Have students form groups and design a series of posters on dos and don'ts for software maintenance to display in the high tech equipment area.

2. Visit an office (word processing center/data processing center) and note the design and arrangement of furniture and equipment.



PRECAUTIONS FOR USE OF HIGH TECHNOLOGY EQUIPMENT

The office of the future is fast becoming a present reality. Office workers are faced with the use of high tech equipment for almost every task in the office--word processing, data processing, electronic mail, records management, and reprographics.

The office workers must learn not only new procedures and ways of operating the equipment, but also the precautions that must be taken when working with high tech equipment.

These information sheets cover the areas of 1) Hazards to the Operator, 2) Equipment Control Maintenance, and 3) Software Maintenance.

Hazards to the Operator

The hazards of working with high tech equipment can be divided into two areas: physical and psychological.

The one piece of equipment that seems to cause the most problems is the VDT (video display terminal) unit or CRT (cathode ray tube) unit. The problems seem to arise not only from the design of the equipment but also from the way they are used. Moderate-to-heavy users of VDTs will be more apt to develop problems than those who do not use the units so often.

The three areas that we will explore include eye problems, physical stress, and psychological stress.

Eye Problems

The most severe eye problem in working with VDTs is eyestrain. Prolonged staring at a VDT (10 to 18 inches away) tends to strain eye muscles. As a result, video display operators suffer from eyestrain, blurred vision, and burning eyes. There is some evidence, also, that cataracts can develop from exposure to microwaves.

There are several factors involved in creating these eye problems. Lighting conditions for VDT use are not so bright as that needed for conventional office work. Actually, less light is needed to operate a VDT. The less light provides a maximization of contrast of the words on the screen and also reduces the glare on the screen caused by the overhead lighting. If the copy to be entered needs more light to be seen clearly, individual task lighting can be used.

The use of "cool-white" or "warm-white" fluorescent lights causes the operator to compete with excessive glare thus causing eyestrain and other eye problems. Furthermore, the operator often shifts position in order to eliminate the glare, thus causing other physical problems. A certain amount of psychological stress is involved because the operator becomes frustrated at the inability to view one's work properly.

Another factor contributing to eye problems is windows. Windows are desirable to all office workers; but unless they are covered with drapes or shades, the glare they produce can create serious problems for the VDT operator.

Walls, ceilings, desks and even computer keyboards can create glare if they are brightly colored. White, yellow, orange, or any other bright color reflects light causing glare to the operator's eyes. These colors can be used if they are of matte (light-absorbent) material.

The size of the letters on the VDT screen is a fourth eye problem. The cheaper computer systems generally have smaller screens; therefore, the letters are smaller in order to place more information on the screen. Thus, the operator either has to lean forward to read the letters which can result in physical stress or strain to read the letters from a distance. Some systems have images that are fuzzy which creates additional eye problems.

A fifth concern is the flicker that is inherent in virtually all VDTs. In order to understand this problem, a process called the "refresh rate" must be explained. The images that an operator reads on the screen result from an electron beam that sweeps from side to side across the inside of the screen. The beam begins at the top and sweeps down to the bottom. The beam returns to the top and the process begins again after the bottom has been swept. The number of times per second that this process occurs is called the refresh rate. About 65 flashes per second or more is considered a sufficient refresh rate. If the rate falls below this speed, the images on the screen appear to flicker. This flicker can cause eyestrain or psychological stress.

Finally, improper machine maintenance can be a cause of eye problems. If a machine is not maintained properly, the images are not so sharp as those that are inspected regularly. Another problem in machine maintenance is dirty screens. Screens should be cleaned regularly in order to prevent problems.

Physical Stress

Physical stress and eye problems are closely related because both problems are caused somewhat by poor design of equipment. As mentioned earlier, glare causes a VDT operator to shift position in order to get rid of the glare. This can cause back, neck, and shoulder pain as well as headache and fatigue.

The inflexibility of many computer terminals also creates problems. Keyboards are not detached; therefore, they cannot be located to a more comfortable position. Screens aren't adjustable and on some the brightness and contrast cannot be adjusted.

To people who wear glasses, the inability to adjust a screen is particularly harmful. Normal reading glasses are intended to help the individual see reading material from 12 to 15 inches away. If the screen cannot be adjusted forward or backward, the operator must either lean forward or backward to compensate for this lack of mobility.

People who wear bifocals might have more problems. Since they need to look down to read through the bottom portion of their glasses, they would have to tilt their head backward in order to read from a nonadjustable screen.

It is recommended that people who wear contacts should not work with VDTs. Contacts prevent a person from blinking frequently. This, in combination with staring at a screen, causes the eyes to dry out resulting in severe discomfort.

Furniture and machine design lean more toward efficiency of space planning and cost competitiveness. Fortunately, more office furniture and machine manufacturers are beginning to realize that worker comfort is more important in design.

Two areas that need design changes are the computer keyboards and chairs. Designers should keep in mind that both left and right-handed users will be using the keyboard. Chairs determine what position and distance is used while sitting at the VDT. Poorly designed chairs can cause all kinds of aches and pains.

As the difficulty of work increases, so does the overall fatigue and headaches.

Psychological Stress

Psychological stress is also practically synonymous with physical stress and visual problems.

Due to the influx of computers and other high technology equipment, the office is becoming more production conscious. That is, the office is being treated more like a production line in a factory. Equipment today can measure the number of strokes per minute and compute the error rate in a fraction of a minute. This capability frightens office workers as it can be a very dangerous tool in the hands of some office managers, supervisors, and executives.

There is very little flexibility in the use of high tech equipment as a tool. Instead, to some it has become a threat to the employee's well-being and the employee's job security.

Instead of increasing productivity, as it was orginally intended, the industry is trying to push the mechanization or "automation" of the office without considering the results.

The list of psychological stressors is a long one. The following are examples: pressures that result from a supervisor watching over the operator and measuring the number of strokes, error rate, time off, and other items; a fear that they will be put out of work by automation; the compartmentalization of secretarial and clerical jobs, with tasks being broken down into smaller and more boring components; and, processes and job speed that are directed by the computer, which requires that jobs must be done in certain order, at a predetermined speed, and without any regard for personal abilities and preferences.

This brings out the factor of the nature of work performed on the VDT. For example, the increased usage of computers has increased the rate of data and work-handling but has decreased the number of skills used by an employee. In the past, a secretary would be responsible for a document from dictation to transcription and the mailing of the copy. With the advent of the computer, however, a secretary may just transcribe notes all day.

According to a report prepared by the National Office Productions Associations of SRI International, centralized control over word processing, filing, and data-handling operations is being used by large organizations. This computerized office will not be satisfactory to a great number of people as decreased job involvement will lead to an increased anxiety state concerning job advancement, job roles, and other parts of job satisfaction.

Solving the Problems

Most of the changes in the past few years have come about because of growing concern by the labor unions. They key issue in all the bargaining and contracts is rest periods. Researchers agree that rest periods do seem to be the answer to many of the problems caused by VDT operation. Furthermore, these rest periods should be "informal" self-styled rest periods, as they are more beneficial.

Lighting for VDT operation should be adjustable--dim enough to produce sharp images on the screen but bright enough for the operator to be able to read the copy. The lighting should also be such that only reflected light reaches the VDT screen.

Probably the most important key to solving problems associated with VDTs is communication between employer and employee. Potential VDT users should be in on the selection of equipment and establishment of procedures and work patterns from the very beginning. The environment should also be checked periodically. Finally an eye test should be taken regularly in order to find and treat any disorders immediately.

Basically, there are two cures for VDT problems. There is low technology which involves establishing rest periods, adjusting lighting, rotating job responsibilities, adding anti-glare screens and increasing employee-employer communications. Cures that are classified as high technology are redesigning computer terminals, redesigning the work structure, and redesigning the physical environment.

A Note About Radiation

Much of the high tech equipment in use today contributes to the dosages of radiation in the environment. Although the amount of radiation emitted from this equipment is very small, research indicates that it still has an adverse effect on the human.

It is known that radiation can be harmful to unborn infants when they are exposed to it during the early stages of pregnancy. As there have been deformed infants born to mothers who were VDT users, there may be some connection between the two. This particular theory has not been proven.

Are microwaves that are produced by high tech equipment harmful to VDT users? There are no real answers to this question. It is known that low doses of radiation can change the brain-wave patterns, can affect the growth of bone, tissue, and other living cells, and can change the action of enzymes that control nerve functions. Other effects include heart disease, loss of memory, cataracts, altered behavior, damage to the immune system, infant deaths, depression, and a number of neurological disorders.

With the growing amount of radio frequencies emitting from "automated" offices, the government is beginning to research more in that direction.

In short, any involvement with radiation, microwaves, or radio frequency must be taken with precautions.

Equipment Control/Maintenance

The ideal place to start in dealing with high tech equipment is in the selection of the equipment. The following list gives the potential buyer some tips in buying equipment that is more "human oriented."

Equipment

1. Is the screen tiltable both in up-down and left-right positions?
2. Can the brightness and contrast be adjusted?
3. Is the keyboard detachable?
4. Does a glare shield come with the machine?
5. Is the keyboard flexible and easy to use for both left and right-handed people?
6. Does the machine produce a large amount of heat?
7. Will it be necessary to upgrade the electrical wiring or increase the air conditioning capacity?
8. Is the color of the screen easy on the eyes? (e.g., Green is a color which tends to be more or less neutral.)

Furniture

1. If the furniture is a bright color, does it have a matte finish?
2. If the furniture does not have a matte finish, is the color subdued enough to prevent glare?
3. Does the furniture permit adequate leg room?
4. Is the furniture the right height?
5. Do chairs adjust by backrest height, seat height, and armrests?
6. Will the viewing distance from operator to screen be within easy viewing range?

It should be remembered that equipment should be maintained properly and according to a schedule. Equipment should be covered when not in use to protect against dust and any other harmful materials. Food and drink should never be brought into areas with any type of equipment, high tech or otherwise.

Disk drives should be cleaned periodically. Check with the manufacturer to see what special head-cleaning disks can be used in your particular model. Some manufacturers prefer that only their repair people clean disk drives. Printers should also be checked and serviced periodically.

If equipment has already been purchased, then perhaps the environmental conditions can be changed to help the VDT user. Lighting both from fixtures and windows can be adjusted to prevent glare. Glare shields can also be purchased for the VDT. Careful comparison of furniture (desks and chairs) can be made in order to change to the type of furniture that would be better suited to high tech use.

All operators of high tech equipment should be trained by those who know how the equipment is operated. Persons who have not been fully trained should not operate the equipment.

An untrained individual should not attempt to repair high tech equipment. Only persons trained in the proper maintenance of high tech equipment should check and repair it.

Power failures or fluctuations in the electrical flow can also be a problem in high tech use. Special equipment (voltage surge protector) can be purchased to prevent the power fluctuations from occurring. Just remember to save data periodically when working to prevent loss due to power surges or failure.

Software Maintenance

The first rule in handling software is to buy quality, time-tested software. If you try to save money in purchasing software, you will buy nothing but trouble. Of course, there may be times when the program is one of-a-kind or just introduced. If this is the case, go slowly and watch for any "bugs" in the program. Check with the manufacturer from time to time to see if any bugs have been discovered and need to be corrected.

There are some general guidelines to follow when handling disks. Listed below (see Transparency #1) are some disk dos and don'ts.

-- Do not bend or fold disks.

-- Do not use rubber bands or paper clips on the disks.

-- Do not allow disks to get wet. Wipe clean and allow them to dry if this ever happens.

-- Do not touch or clean exposed disk surface.

-- Handle disks by the edges.

-- Store disks at room temperature.

-- Do not expose disks to excessive heat or sunlight.

-- Do not place heavy objects on disks.

-- Write on disk labels with felt tip pens only--and then lightly! Don't use ballpoint pens or pencils!

-- Do not erase labels attached to the disks.

-- Use care when inserting the disk in the disk drives, especially when opening and closing the disk door.

-- Store disks vertically. Do not "pack" them together.

-- When not in use, disks should be stored separately in their protective jackets so that contaminants in the air such as smoke and dust are prevented from touching the disk surface.

-- Keep disks away from anything containing a magnet, especially any electrical equiment.

-- Do obtain (or make) a backup.

-- Do clean the read/write heads as specified in the owner's manual.

-- Do follow start-up procedures as listed in the disk operation manual.

-- Do handle disks with care.

-- Don't take disk out of the disk drive when the light is on.

-- Don't place the disk on top of the computer or near anything electrical.

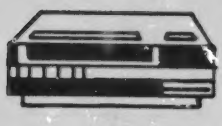
-- Don't put a disk containing valuable data in a system you suspect is malfunctioning.

-- Don't remove or open the protective mylar covering.

Storage of Software

Software should be stored in a dry area away from heat. Disks should be inserted inside their jackets and stored loosely in a vertical tray file. These trays should be kept away from heat, dust, and any other electrical equipment.

Disks can be classified into three main areas: daily, temporarily-stored, and permanently-stored. Daily disks should be kept as close to the operator workstation as possible. Temporarily-stored materials include those that have a short-term usefulness and can be stored somewhere in the work area vicinity. The permanently-stored materials contain data that will be useful for a long period of time. This data can be stored in areas that are not necessarily within the immediate area of the work station. Very valuable information on disks can be stored in vaults.



ASSIGNMENT SHEET NO. 1

A Safe High Tech Office

Teacher Information

This activity can be done on an individual basis, but is especially designed for use in a small group of three to four students.

Each group is to design its own workstation (for the individual student), word processing center (for a group of students), or data processing center (for a group of students) according to the guidelines given in this topic. The extent of the exercise is flexible, depending on the time available and wishes of the instructor. In order to avoid the technicalities of measuring and deciding on actual placement, it is to be assumed that the students will have plenty of work space. Therefore, they need not worry too much about the size of the furniture at this point. Remind students, however, that office space is at a premium and large, bulky furniture is not used.

The student(s) should include the following items:
- -- Appropriate desk (include color)
- -- Appropriate chair
- -- Basic color scheme (walls and carpet)
- -- A workstation of high tech equipment (This can be a computer/microcomputer and printer or a word processor and printer.)
- -- Explanation for chosing a particular brand/model
- -- Storage for software and where he/she would place this software storage in relation to the high tech equipment (close by, across the room, in a room close by)

Once the group(s) have arranged their projects, they are to present the project to the class. The project should be evaluated in the following areas:
- -- Presentation
- -- Validation
- -- Preparation
- -- Criterion
- -- Participation

Each area will be worth 20 points. (Refer to the section on evaluation in Student Information for a full explanation of each area.)

Remember that the students are not expected to be **very** thorough in selecting the furniture, equipment, etc. Check to see that they understand the material given in the lesson and apply that knowledge in selecting the appropriate furniture, equipment, etc.

Student Information

You are to design your own workstation/word processing center/data processing center according to the guidelines given in this lesson.

Assume that you will be given enough office space so that you need not worry about the size of the furniture and equipment. Keep in mind that office space is at a premium and do not use large, bulky items.

Include the following areas in your project.

- -- Furniture: Choose appropriate desk and chair; include the color of each.
- -- High Technology Equipment: Choose one station (computer/microcomputer and printer or word processor and printer).
- -- Office Color Scheme: Select colors you would use for the walls and carpet only.
- -- Software Storage: Select examples of storage for daily, temporarily-stored and permanantly-stored software (disks).

Be prepared to present your project to the class. State the reasons you chose a particular piece of equipment, furniture, etc. Your presentation should be organized and presented in an orderly manner.

The project should be arranged attractively so it may be later displayed for the entire class to enjoy.

Procedure

1. Gather materials (magazines, newspapers, catalogs, paper, scissors, tape).
2. Decide on what color scheme you wish to use.
3. Study the different kinds of furniture and equipment displayed. Read as much as you can about any type of office furniture and/or equipment.
4. Cut out and assemble examples of the furniture equipment and storage you plan to use. Arrange neatly on a sheet of paper/construction paper/poster paper.
5. Write down (type) explanations for choosing a particular piece of furniture, equipment, etc. Arrange your information in an orderly fashion to present to the class.
6. All students in the group must prepare and type a list of their own particular responsibilities in preparing the project.
7. Present your project to the class when instructed to do so.

Evaluation

The student will be evaluated in the following area. Each area will represent 20 points of a 100-point score.

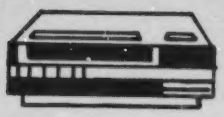
1. Presentation
   a. Was the presentation well organized?
   b. Was the presentation given in an effective manner (interesting, geared to the audience, etc.)?

2. Validation
   a. Were reasons stated for choosing a particular color scheme?
   b. Were reasons stated for choosing a particular brand of furniture?
   c. Were reasons stated for choosing a particular brand/model of equipment?
   d. Was storage mentioned for daily, temporarily-stored and permanently-stored software (disks)?

3. Preparation
   a. Was the project neatly arranged and put together?

4. Criteria
   a. Were the criteria given in the lesson followed in choosing the color scheme?
   b. Were the the criteria given in the lesson followed in choosing the furniture?
   c. Were the criteria given in the lesson followed in choosing the equipment?

5. Participation
   a. Did each student in the group prepare a section of the project?

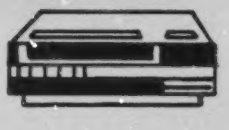


ASSIGNMENT SHEET NO. 2

Disk Scramble

Listed below are some dos and don'ts in working with disks. One or two important words are left out of each rule. Unscramble the letters in parentheses and fill in the blank to make the rule complete.

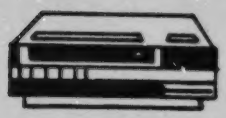
1. Store disks _____. (ryclivtlea)
2. Keep disks away from anything that contains a _____. (gnemta)
3. Handle disks by the _____. (sgeed)
4. Do not _____ (seera) labels that are attached to the disk.
5. Always make a _____ (kpcuba) copy of important data.
6. Do not _____ (dben) or _____ (ofdl) disks.
7. Do not carry _____ (doof) or _____ (ksdnir) around software or equipment.
8. Do not _____ (hutoc) or _____ (nlcae) the exposed disk surface.
9. Do not expose disks to excessive _____ (tahe) or _____ (gtuislnh)
10. Always use a _____ (tlfe) - _____ (dppiet) pen to write on disk labels.
11. Do not place _____ (yhave) _____ (sjotcbe) on disks.
12. Do not use _____ (berrub) _____ (snbad) or _____ (apper) _____ (plsic) on disks.
13. Replace the disk in its protective _____ (kajtec) when not in use.
14. Disks should not be _____ (kepcad) closely together.
15. Remember to handle disks with _____ (race).



ASSIGNMENT SHEET NO. 2 KEY

Disk Scramble

1. Vertically
2. Magnet
3. Edges
4. Erase
5. Backup
6. Bend, fold
7. Food, drinks
8. Touch, clean
9. Heat, sunlight
10. Felt-tipped
11. Heavy objects
12. Rubber bands, paper clips
13. Jacket
14. Packed
15. Care

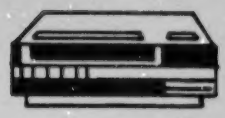


TEST

1. List 15 precautions (dos and don'ts) that should be used in taking care of software (disks).

2. The proper equipment and furniture are important in promoting comfort, safety, and productivity in the use of high tech equipment. List ten tips that you would use in selecting the proper equipment and furniture in a high tech office.

3. Problems caused by high tech equipment can be divided into three areas: visual problems, physical stress, and psychological stress. List ten problems an office worker might encounter in the high tech office.



KEY TO TEST

1. Students' answers may vary. Any of the precautions listed under software maintenance may be used. If the instructor so desires, the 14 precautions listed on TM#1a and b may be used as the core answers.

2. Any ten tips may be listed from those cited in Student Information Sheet, Equipment Control/Maintenance.

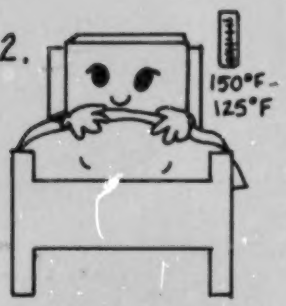
3. Any ten of the problems listed in the lesson or listed on the Chart in TM#3 may be used. Possibly, the most prevalent (the top ten) of the problems should be stressed.

Disk Dos and Don'ts

1.

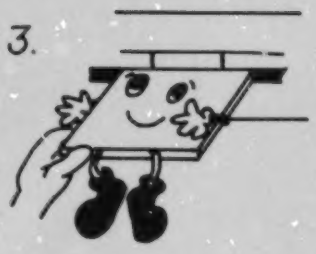
Do not bend or fold disks.

2.



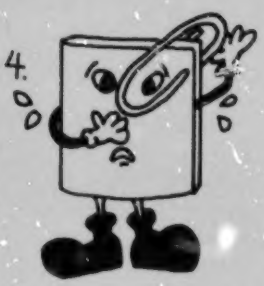
Store disks at room temperature.

3.



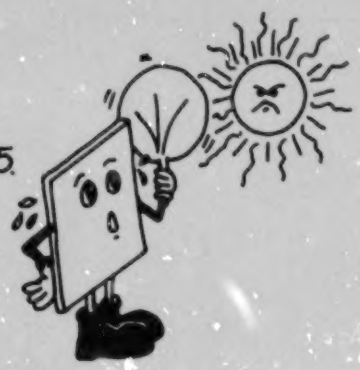
Use care when inserting the disk in the disk drive, especially when opening and closing the disk door.

4.



Do not use rubber bands or paper clips on the disks.

5.



Do not expose to excessive heat or sunlight.

6.

Store disks vertically. Do not "pack" them together.

7.

Do not allow disks to get wet. Wipe clean and allow them to dry if this ever happens.

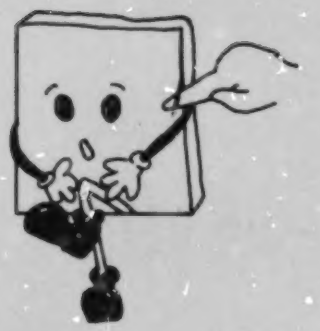
8.

Do not place heavy objects on disks.

TM #1a
Disk Dos and Don'ts
PRECAUTIONS FOR USE OF HIGH TECHNOLOGY EQUIPMENT

More Disk Dos and Don'ts

9.



Do not touch or clean exposed disk surface.

10.

Write on disk labels with felt-tip pens only—and then lightly!

11.

When not in use, disks should be stored in their protective jackets so that contaminants in the air, such as smoke and dust, are prevented from touching the disk surface.

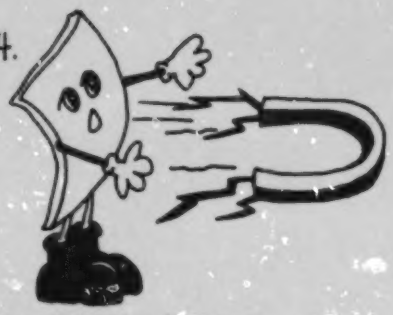
12.

Handle disks by the edges.

13.

Do not erase labels attached to the disks.

14.



Keep disks away from anything containing a magnet, especially any electrical equipment.

Can You Spot the Office Hazards?

TM #2
Spotting Office Hazards
PRECAUTIONS FOR USE OF HIGH TECHNOLOGY EQUIPMENT

KEY TO TRANSPARENCY #2: CAN YOU SPOT THE OFFICE HAZARDS?

Hazards

1. Large windows—no shades or drapes.
2. Desks are crowded together—operators do not have sufficient room.
3. One operator has food and drink on desk.
4. One operator is holding disk improperly—fingers are on the disk itself.
5. On one desk disks are crowded into vertical file tray.
6. One operator is leaning head back because VDT screen is too high.
7. On one desk, disks are lying halfway under a telephone.
8. One operator is erasing something written on a disk.
9. Some disks are lying on a desk/table in direct sunlight from large windows.
10. A stack of disks is lying on the top of one VDT unit.

TRANSPARENCY MASTERS #3 & 4

To the Teacher

The chart depicted on **TM #3** contains the results of a survey taken in 1979 by the National Institute for Occupational Safety and Health (NIOSH). The companies included in the study were four newspaper offices and a major insurance company.

The non-VDT users indicated on the chart were control subjects who did work similar to that of the VDT operators but without the use of a VDT.

Depicted on the chart in **TM #4** is a summary of the recommendations by NIOSH for dealing with problems caused by VDT units.

Health Complaints of VDT Users

Complaint	VDT Users	Non-VDT Users
Eyestrain	91%	60%
Painful/stiff neck or shoulders	81	55
Burning eyes	80	44
Irritability	80	63
Back pain	78	56
Fatigue	74	57
Irritated eyes	74	47
Blurred vision	71	35
Sore shoulder	70	38
Painful/stiff arms or legs	62	35
Neck pressure	57	34
Skin rash	57	31
Neck pain into shoulder	56	19
Stomach pains	51	35
Nervous	50	31
Swollen muscles and joints	50	25
Hand cramps	49	16
Numbness	47	18
Stiff/sore wrists	47	7
Change in color perception	40	9
Pain down arm	37	20
Fainting	36	17
Loss of strength in hands/arms	36	14
Loss of feeling in fingers/wrists	33	11

Sources:

Makower, Joel. *Office Hazards: How Your Job Can Make You Sick*, 1981.

National Institute for Occupational Safety and Health. "An Investigation of Health Complaints and Job Stress in Video Display Operators," 1980.

The NIOSH RECOMMENDATIONS

1. VDT workstations and devices should be made as flexible as possible to allow for individual operator control of:
   a. Keyboard height.
   b. Screen height.
   c. Screen brightness and contrast.
   d. Leg room.
   e. Viewing distance (should be within 450mm to 700mm).
   f. Workstation illumination levels (if indirect lighting at the workstation is provided).
   g. Chair adjustments (of the seat height, backrest height, and armrests).
2. The VDT screen should be positioned so that the viewing angle is 10° to 20° below the horizontal plane at eye level.
3. Illumination levels should be within 500 to 600 lux, with individual workstation lighting provided for jobs requiring higher levels due to visual demands.
4. Screen glare should be controlled through the use of any one or all of the following means.
   a. Windows should be covered with drapes or blinds to limit direct sunlight.
   b. VDTs should be positioned properly with respect to overhead lighting and high luminance sources in the work area.
   c. Hoods should be installed over screens to shield from direct or reflected light.
   d. A glare shield should be installed on the screen.
   e. Recessed lighting and special fixture covers should be used.
5. There should be mandatory work-rest breaks of at least fifteen minutes every two hours for VDT operators under moderate visual demands and ten minutes every hour for operators under high visual demands.
6. Visual testing of VDT operators should include:
   a. An initial complete opthalmologic examination including refraction, acuity, and accommodation testing; tests for color vision function; and examination of the cornea and the lens for opacity and the retina for detachment.
   b. Annual refraction, acuity, and accommodation testing.

Sources:

Makower, Joel. *Office Hazards: How Your Job Can Make You Sick*, 1981.

National Institute for Occupational Safety and Health. "An Investigation of Health Complaints and Job Stress in Video Display Operators," 1980.

HIGH TECH IN THE OFFICE

Very Low Radiation Emissions

Properly Designed Furniture

Controlled Environment

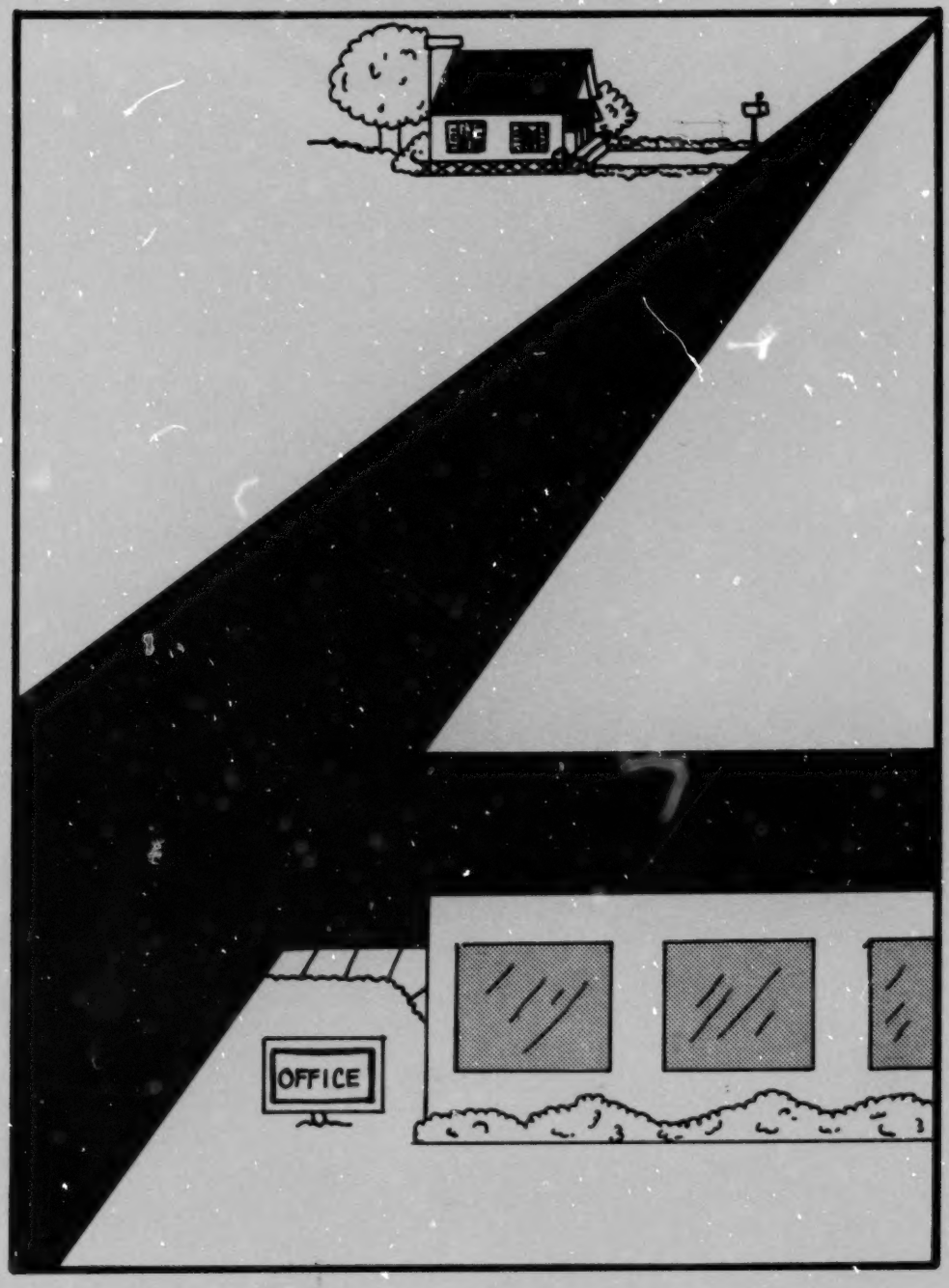
Properly Designed Equipment

MAKE IT SAFE!

PRECAUTIONS FOR USE OF HIGH TECHNOLOGY EQUIPMENT: Bulletin board item

Select pictures from magazines or catalogs which illustrate the four headings cited around the silhouette on the reverse side. Try to find eye-catching, colorful pictures. The silhouette of the man and woman will be at the center of the bulletin board.

PERSONAL SAFETY PRECAUTIONS TO, FROM,
AND WHILE ON THE JOB



LESSON TOPIC: PERSONAL SAFETY PRECAUTIONS TO, FROM, AND WHILE ON THE JOB

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to:

1. Describe the safety precautions that should be followed while en route to work.
2. Explain at least one procedure for handling a threatening or obscene telephone call.
3. Explain how to handle properly and safely any money, negotiable instruments, or securities.
4. Describe the dangers that may exist in any parking garage or lot before, during, or after regular working hours.
5. Explain the importance of recognizing and reporting strangers in and around the office.
6. List at least three parts of the car that should be checked periodically to make sure that the part is in good working condition.

RESOURCES

Overhead projector
Guest speaker--safety officer from a local business, hospital, or law enforcement agency
A copy of safety rules from any local business
Newspaper clippings citing actual cases regarding personal safety

LEARNING ACTIVITIES

1. Have the student read the Student Information Sheets covering three units.
2. Discuss the Information Sheets using Transparencies #1 and 2 where indicated.
3. Discuss the cases cited in the Assignment Sheet and have students tell how the incident may have been prevented. (The discussion may be done in small groups to encourage greater participation.)
4. Use the Self-Check as a way of reviewing the safety precautions discussed throughout the lesson.
5. Evaluate the student's mastery of the lesson.

EVALUATION: Mastery of the learning objectives for this lesson will be determined by the student's recognizing all the unsafe procedures in Test Situations 1 and 2 with 100% accuracy.

OUTSIDE CLASS ACTIVITIES

1. Visit a business and have the safety officer talk with the students about the company's view of safety and how it is accomplished on a day-to-day basis.

2. Have the student talk with parents, neighbors, or relatives about how their companies handle safety in parking lots and garages, threatening or obscene telephone calls, etc., and report to the class.

PERSONAL SAFETY PRECAUTIONS TO, FROM, AND WHILE ON THE JOB

Safety precautions for office personnel while on their way to the office, in the office, and on their return trip home have become necessary as the number of crime incidents has increased. Over the last few years however, the public has become somewhat less safety-minded with regard to safeguarding themselves against avoidable incidents. All one has to do to verify this fact is to read a daily newspaper or listen to the local news programs to hear of the crimes committed to those persons who are being so trusting and naive of their surroundings. There are persons who prey on the innocent and capitalize on their unsuspecting and inattentive natures. Therefore, office workers should be aware of the following guidelines to help prevent attempts against their personal safety.

En Route to Work

1. Before getting into your vehicle, check the floors, especially the back seat, to make sure no one is hiding in the car waiting for you.

2. Once in the car, lock all doors to prevent anyone from opening the door while you are stopped at intersections.

3. Fasten your seat belt. Studies of highway accidents prove that seat belts definitely save lives. "GET IN THE HABIT." (TM#1)

4. When traveling to work, it is a good idea to take the same route in case something happens. You never know when you may have car trouble. Using the same route would enable someone to locate you quickly. Not only let your family know your route, but also give your employer a copy in case you should be needed.

5. After parking your car and before cutting off the engine and unlocking your doors, look around to see if there are any unfamiliar persons loitering nearby. If an unfamiliar person is in the parking lot, calmly proceed in your car far enough away and call your building security or local police to report the suspicious individual. If you should see no one who looks suspicious, then make sure that you lock the doors behind you as you emerge from the car.

6. As you are walking to the office, you should secure your handbag to prevent its being snatched. Hold it securely under one arm with the other hand either on top of the bag or on the straps. If you are carrying just a wallet, you should put it in a pocket that can be buttoned or your briefcase so it is concealed.

7. If you park in a parking garage and must use an elevator or stairs, always look through the glass in the door leading to the elevator to make sure there are no persons trying to conceal themselves.

While at Work

1. Be sure to put all personal belongings in a safe place--out of sight, preferably somewhere that can be locked.

2. Never leave money, securities, or negotiable instruments lying on your desk unattended. Make sure that these instruments are put in a safe overnight and not in your unlocked desk drawer or file cabinet. (TM#2)

3. Be prepared to handle threatening telephone calls that may come into the office. Remember to remain calm and follow procedure. For example, one firm requires you to fill out a data sheet that lists information such as the following: spouse's place of employment and telephone number, children (ages, names, schools or day care center), and cars (make, model, year, and color). This sheet is kept under the telephone and should you receive a threatening call, place a check beside the appropriate data on your sheet to indicate which person is being threatened and begin waving the sheet in the air. One of your fellow workers will see you and notify the supervisor. You should keep the person on the phone long enough to find out if the threat is actually true or a hoax, and then the proper authorities can be notified. Since this is only one of the many procedures used in the business world, you should ask your employer for the procedures used in your particular company.

4. Be sure to give your employer an up-to-date personal data sheet that gives your doctor's name, a contact person in case of an emergency, any allergies, illnesses, etc. This information is vital to your well being. Having just one piece of this data could mean the difference between life or death.

5. Should you notice a stranger or someone who appears suspicious in the building, call your supervisor or building superintendent. You CANNOT be too cautious about strangers.

6. Become familiar with your company's policy on handling bomb threats, obscene telephone calls, etc. You also should know the company's procedure in case of a fire emergency. Remember to read these emergency procedures at least several times at first and refresh your memory during the year by reading through the procedures to make sure that you remember what to do.

En Route Home

1. Try to walk in pairs and see each other safely to the car when you are leaving the building, especially after dark. If you should leave work late at night alone, notify the security personnel of your plans so you can be seen to your car by an officer or some other employee. While in the office by yourself, it is always a good idea to lock the door to your office to prevent strangers or anyone else from entering unnoticed.

2. Always have your keys in your hand ready to unlock your car door when leaving work.

3. Check the floors of the car to be sure that no one is inside.

4. Remember to lock your car doors once inside and before proceeding.

5. Fasten your seat belts before starting the car engine. (TM#2)

6. Follow your prescribed route home. If not going straight home, you should notify someone of your plans and your expected time of arrival. If you should see that your plans change or that you are going to be later than you first thought, notify someone. MANY HEADACHES AND MUCH WORRY CAN BE PREVENTED BY YOUR THOUGHTFULNESS!

Since most people drive either their own car or carpool, it is most important that the automobile be in proper operating condition. If not, you're living dangerously. Take the time to inspect your car for several easily detectible problems: improperly inflated tires; worn-out brakes; faulty turn signals, head lights, and tail lights; broken horn; dirty or cracked windshield and windows; and windshield wiper blades not in good repair. It will cost you only a few minutes of your time, but this inspection and the maintenance effort could very well spell the difference between many more hours of accident-free driving and a frightening experience.

Employers want to keep employees on the job, and they have a definite obligation to keep their employees safe both on and off the job. The more safe-minded employees are, the less likely they are to have avoidable accidents, which means preventing loss of time from the job. The word is SAFETY! Spread it.

SELF-CHECK

Student Review Sheet

As a way of reviewing the information contained in the Student Information Sheets, unscramble each of the following phrases. All of them have appeared in this section on personal safety.

1. TNFSAE TASE SLBTE _____
2. CKLO RODSO _____
3. EKCHC HADE GTIHLS _____
4. LROYPEPR DFILNTAE ETISR _____
5. KHCEC LELWSSTRAI _____
6. YMNEO NI EASF _____
7. LKWA NI RSAPI _____
8. EB AREWA FO SSGTNARER _____
9. EHCKC ETH CKAB TESA _____
10. RNCUERT ATDA TESEH _____

KEY TO SELF-CHECK

Student Review Sheet

1.	TNFSAE TASE SLBTE	Fasten Seat Belts
2.	CKLO RODSO	Lock Doors
3.	EKCHC HADE GTIHLS	Check Head Lights
4.	LROYPEPR DFILNTAE ETISR	Properly Inflated Tires
5.	KHCEC LELWSSTRAI	Check Stairwells
6.	YMNEO NI EASF	Money in Safe
7.	LKWA NI RSAPI	Walk in Pairs
8.	EB AREWA FO SSGTNARER	Be Aware of Strangers
9.	EHCKC ETH CKAB TESA	Check the Back Seat
10.	RNCUERT ATDA TESEH	Current Data Sheet

ASSIGNMENT SHEET

Cases for Discussion

Case A

Tom Sandiford has been working on a project that should be completed by the first of the month, which is tomorrow. It is now 4:45 p.m. and there are only 15 minutes left in the work day and it is impossible for Tom to finish his part of the project. In order to meet the project deadline, Tom decides to stay at work until he finishes.

It is 8:30 p.m. before Tom realizes it. He has, however, completed his work, and the project will meet the deadline. What a great feeling of relief! He hurriedly straightens his desk, cuts out the lights, and proceeds to his car.

List any personal safety measures that Tom forgot to follow when he made his decisions to stay late at the office.

Case B

Margie Stanwick normally leaves her office around 5:00 p.m. and follows the same route home each day without fail. At 4:45 p.m. Mrs. Felix, Margie's supervisor, asks if she would stay for about 30 minutes to help her complete some payroll records, and Margie agrees. At 5:30 p.m. Margie gathers her personal belongings and heads for the parking garage, as it is getting dark. Suddenly she remembers that she has a meeting at 7:00 p.m., and that it takes her 30 minutes to get home from work. She quickly decides to take a shorter, unfamiliar route home in order to save precious moments.

List any personal safety measures that Margie may have forgotten to follow.

Case C

John Stone is an accounting clerk for Stevens Corporation. It is John's responsibility to make the daily bank deposits. Each day around 3:00 p.m. he deposits the checks and cash that the business has received for services that day. In the midst of counting the cash, John is called to Mr. Swicegood's office across the hall for a few minutes. John asks Janice, one of his co-workers, to keep an eye on his desk until he gets back. At 2:30 p.m. John leaves his desk knowing that Janice is trustworthy. Janice normally goes on break at 2:45 p.m. Forgetting what John had asked her to do, she leaves to go on break in the break room in the basement.

List any violations John may have made with regard to handling money safely.

In what way, if any, did Janice violate safety measures regarding the handling of money safely?

ASSIGNMENT SHEET KEY

Cases for Discussion

Case A

Tom forgot to notify someone at the office and someone at home that he would be working late since this was a last-minute decision. He also did not let anyone know that he was leaving the office at 8:30 p.m. (Students may vary in their answers depending upon the class discussions they have had.)

Case B

Margie failed to notify anyone at home of her plans to work late and to let anyone know that she would be traveling home via a different route. (The answers for this case may differ also.)

Case C

John forgot that money or any negotiable item should be secured with lock and key when not in his possession. Even though he left someone in charge, he is the one who is totally responsible for the money. Janice should have seen that the money was secure before she left for break; or she should have stayed until John returned as she agreed to taking the responsibility for the money. (Students may have different ideas as to the security of the items.)

TEST

Essay: React/respond in writing to the following two hypothetical situations.

Situation 1

Carol awakens at 7:55 a.m. only to realize that she has overslept and must report to work (The Pope Corporation) by 8:30 a.m. She hurriedly gets dressed, does not eat her breakfast, and rushes to the car. In a few moments she is on the freeway in all the rush traffic. When she drives into the parking garage, she realizes there are no more spaces on the level where she usually parks; therefore, she has to park on an unfamiliar level. Since it is now 8:29 a.m., Carol runs for the elevator and walks in the door of the Pope Corporation right on time, 8:30 a.m. Were there any personal safety measures that Carol forgot to follow in her haste to get to work on time?

Situation 2

William is treasurer of Wallace Properties, Inc., and it is his main responsibility to handle the company's accounts receivable and accounts payable ledgers in addition to reconciling the checking accounts. The first of the month is a particularly busy time at Wallace Properties, Inc., and William has a few fellow workers who are absent because of illness. In the morning's mail are several checks and cash from some of their customers, amounting to over $5,000. Also, at the first of each month William is to have a meeting of the employees in his section to go over company policy and employee problems or suggestions. Even though William is "snowed under" with work and money on his desk, he calls a meeting of his section to be held across the hall in the conference room.

After completing all the ledger postings and deposits to checking accounts, and handling customers all day long, William is ready to leave at 5:05 p.m. Suddenly he realizes that he forgot to retrieve some information from the files for one of his fellow employees so that a report could be completed for the board meeting tonight. William decides to stay in the office after everyone has left to compile the needed information. Were there any personal safety measures William forgot to follow?

KEY TO TEST

Situation 1

Answers will vary. Here are some safety measures Carol forgot to follow.

1. Check the floors of her car before getting in.
2. Fasten seat belts on the way to work.
3. Lock her car doors before proceeding to work.
4. Be aware of strangers before parking.
5. Lock her car doors after getting out
6. Hold her purse tightly under her arm.

Situation 2

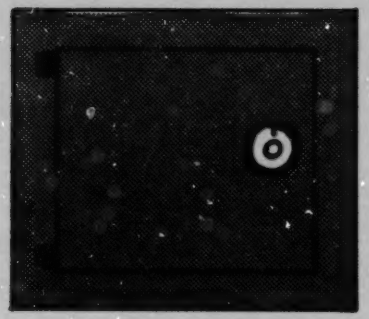
Again, answers will vary. Here are some safety measures William forgot to follow.

1. Make sure that money is under lock and key if you are not present to safeguard the securities.
2. Lock the office if no one is to be there and leave a note on the door to let visitors know where you are.
3. Let building security or someone in your office know that you are working late; also, let someone at your home know when you expect to arrive home.
4. Lock the office door when you are alone after hours.

GET IN THE HABIT!

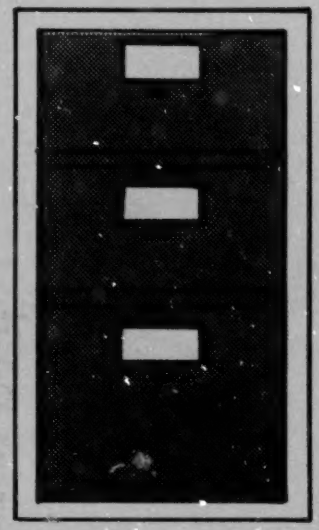
Studies show that fastening seat belts definitely saves lives.

SAFE STORAGE FOR NEGOTIABLE INSTRUMENTS



1. Safe

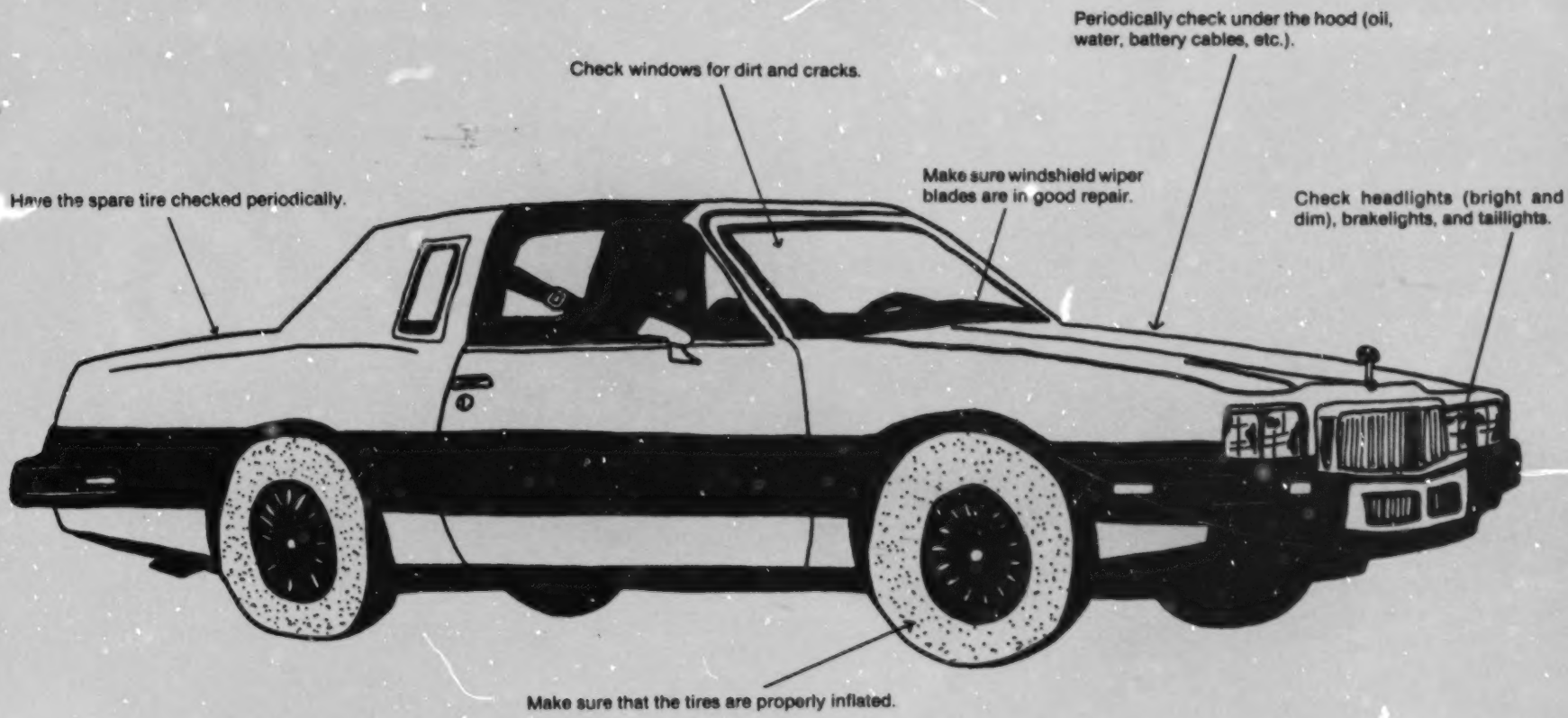
2. Metal Money Box



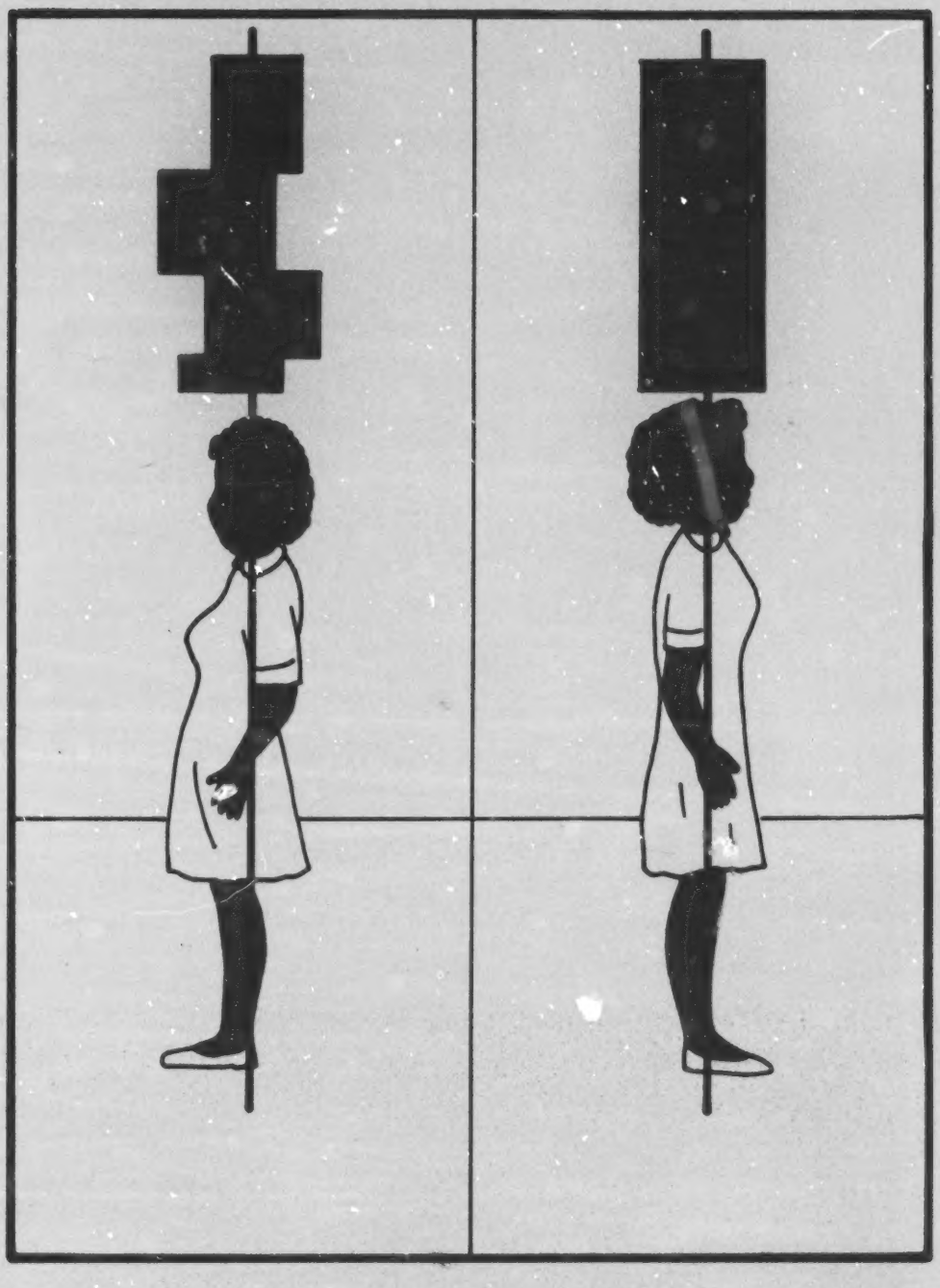
3. File Cabinet

TM #2
Safe Storage
Personal Safety Precautions To, From, and While on the Job

CHECKLIST FOR GOOD MAINTENANCE


Periodically check under the hood (oil, water, battery cables, etc.).
Check windows for dirt and cracks.
Make sure windshield wiper blades are in good repair.
Check headlights (bright and dim), brakelights, and taillights.
Have the spare tire checked periodically.
Make sure that the tires are properly inflated.

PERSONAL SAFETY PRECAUTIONS TO, FROM, AND WHILE ON THE JOB: Bulletin board item



LESSON TOPIC: BODY MECHANICS FOR THE OFFICE ENVIRONMENT

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to

1. Identify the proper way to sit, walk, stand, and lift objects.
2. Discuss the importance of body mechanics not only from the employee's point of view but also from the employer's perspective.
3. Identify at least five causes of back injury in the office.

RESOURCES

Overhead projector
16 mm movie projector*
Copy of a safety manual from a local business (Locate the section on lifting techniques or back injuries.)

LEARNING ACTIVITIES

1. Have the student read the Student Information Sheets on body mechanics.
2. Discuss and demonstrate information presented in the Information Sheets.
3. Show Transparencies #1-9 where indicated on the Information Sheets.
4. Have the student practice proper techniques for standing, sitting, walking, and lifting. Classmates will evaluate the performance.
5. Have the student research the topic of ergonomics, describing any local examples which may exist.
6. Evaluate the student's mastery of the lesson.

EVALUATION: Mastery of the learning objectives for this lesson will be determined by these requirements.

1. Select with 100% accuracy how to sit, walk, stand, and lift properly in order to prevent fatigue and injury to oneself. (Refer to suggested Test #1 which is provided.)

2. List at least five causes of back injury in the office with 100% accuracy. (Refer to suggested Test #2 which is provided.)

3. Complete the objective test with at least 90% accuracy. (Refer to suggested Test #3 which is provided.)

OUTSIDE CLASS ACTIVITIES (PRE AND POST)

1. *Order two films from SCE&G in Columbia, SC: "File It Under Falls, Miss King" and "Down at the Office" (National Safety Council). These films are free as long as you pick them up from their office and return them. Each film lasts only ten minutes but contains excellent information.

2. Invite a physical therapist from a local hospital to talk to your class about back injuries and how to prevent them.

BODY MECHANICS

Even though most people envision office workers as rather inactive persons, many of the office jobs require you to do a great deal of walking from one place to another, sitting for periods of time, operating high technology equipment, and filing and storing materials. Each year over 40,000 accidents occur in the office environment causing much pain to the employee as well as costing money, not only to the employee but the employer. Not included in this 40,000 are all the scrapes, bruises, cuts, or rashes that do not result in lost time and money.

Office accidents generally fall into seven categories: slipping, tripping or falling, using equipment that may not be electrically safe, colliding or hitting obstructions, falling objects, fire, and miscellaneous (horseplay and freak accidents). Generally speaking, however, the office is considered to be rather safe; it becomes unsafe when an overworked, dissatisfied, careless, or frustrated worker comes in contact with potentially unsafe objects.

The cause of most of the injuries which occur in the office lies in the area of falling, tripping, or slipping. National statistics show that more than half the disabling accidents stem from this area, and this type of accident is the costliest and severest kind of accident for both the employer and employee. As a result of these falls, many of the injuries are related to the back.

The back is the most injury-prone part of your body. Not only do you suffer pain along with absence from your job, but your employer also suffers in the loss of your being productive. Additionally, there are increased insurance costs, loss of managerial or office support, and increased money spent for hospital and medical benefits. It is estimated that two out of every three people will suffer back pain at some time in their lives. Also, over $2 billion is spent on an estimated 400,000 occupational back injuries every year. Back injuries know no one segment of the working force; anyone can be affected -- men, women, young, old, desk workers, and laborers. Not only should you be aware of safety hazards in the office environment, but you should be aware of them in your home or wherever you might be.

Many employers today are concerned about **ergonomics.** Ergonomics can be defined very simply "as the science that fits the work place to the person, as opposed to trying to fit the person to the work place."[1] The word **fit** means taking into account the employee's body movements and the body dimensions that relate to the task being performed; for example, comfortable chairs, height of work surface, easy operation and location of equipment, etc. Ergonomics definitely can help the office worker be less prone to accidents in three particular areas: sitting, standing, and lifting.

[1]Kaplan, Archie. "The Ergonomics of Office Automation," **Modern Office Procedures,** May 1982, p. 51.

Sitting

As many office tasks are performed while sitting, the way you sit can determine whether you complete your tasks properly. Many cases have been reported to the Naval Safety Center stating that persons tilted back too far in their office chairs, a situation which resulted in injuries to the neck and head and an absence of 15 days from work.

Whenever you must sit in a swivel chair or one that has rollers, make sure that all four rollers stay on the floor at all times. Avoid sitting in overstuffed chairs as they facilitate poor posture. Sit in a sturdy chair with a firm back. The back of the chair should be adjusted so that the middle of the back is supported. Try to eliminate the space between the back and the chair. (TM#1 and 2)

If possible, elevate the knees higher than the hips while sitting, particularly if your feet do not reach the floor. While sitting for periods of time, your feet should be either flat on the floor or elevated. Since many jobs in the modern office require you to sit for prolonged periods of time, get up and move around as a way of relaxing and avoiding fatigue.

Standing and Walking

Many clerical positions may require you to stand for long periods of time--filing, waiting on customers, using a cash register, etc. If you must stand at the files for extended periods of time, shift your weight frequently from one foot to the other. Flex your hips and knees by occasionally placing a foot on a stool. (TM#3) Take exercise breaks from desk work by getting up, moving around, and performing a few back exercises in the standing position.

The following two exercises will help relieve fatigue. Before doing any kind of exercise, however, always check with your doctor.

1. Stand erect. With one hand grasp the thumb of the other hand behind the back, then pull downwards toward the floor; stand on toes and look at the ceiling while you are exerting the downward pull. Hold momentarily; then relax. Repeat ten times at intervals of two hours during the work day. (TM#4)

2. Stand with your back against a doorway. Place heels four inches away from the doorway. Take a deep breath and relax. Press the small of your back against doorway. Tighten your stomach and buttocks muscles, allowing your knees to bend slightly. This should cause the lower end of the pelvis to rotate forward. Press your hands against the opposite side of the doorway and straighten both knees. Hold for two seconds. Relax. (TM#5)

When standing, don't lean back and support your body with your hands. It is better to lean slightly forward and keep your hands in front of your body. Comfortable shoes can help with fatigue while standing. Choose a low-heel shoe which provides for better traction and helps to avoid falls and slips. (TM#6) For example, compare the traction of a man's shoe and a woman's high-heel shoe. As you can see, the man's shoe provides for more area of traction. Try to avoid wearing extremely high heels or change to low heels frequently during the day.

Many injuries to the back occur when you turn to walk from a standing position. Remember to move the feet first and then move your body. As you approach closed doors, open them wide enough to walk through comfortably. Before walking down stairs or stepping off curbs, judge every step very carefully before stepping down.

Lifting

Most people like to feel that they are able to lift most office equipment, including typewriters, without any assistance. When you lift any object, no matter how large or small, make sure that you follow good lifting techniques. Women especially should avoid lifting objects exceeding approximately 30 lbs.

When lifting, let your legs and not your back do the work, no matter what the weight of the object. Your feet should be on a flat surface to give you good support. Squat directly in front of the object to be lifted, keep the object close to your body, and then rise slowly to a standing position. NEVER bend over with your knees straight and lift with the upper torso. NEVER lift an object with your legs straight. (TM#7)

Whenever a window needs closing, do not reach over furniture to close or to open the window. Unnecessary stretching may cause you to pull your back or cause you to fall, thereby injuring your back.

Try to avoid lifting loads in front of you above the waistline. Lifting above your head may cause injury to your back or may cause you to get off balance. Avoid bending over to lift heavy objects from a car trunk or on the floor, as this places a strain on the lower back muscles.

There may be occasions when two or more people plan to lift something. Each person should decide in advance what each is going to do so as to avoid any one of them getting caught off guard with a sudden, unexpected shift in load that may cause a back injury. Proper planning when lifting objects can avoid accidents.

Driving

Even though driving is not directly related to the office environment, all workers at some time drive to and from work. Therefore, there are several tips for comfortable driving. A firm seat is the best kind. Sit close to the wheel with your knees bent, hip level or above. Whenever you take long trips, stop every two hours and walk to relieve tension and to relax your muscles. (TM#8)

Sleeping

How well you perform your work is very much related to how well you sleep the preceding night. Also, sleeping properly prevents unnecessary back pain. Sleep on a very firm matress. If you don't have a firm mattress, insert a 3/4 inch plywood bed board between the mattress and the box springs. (TM#9) Avoid sleeping on your stomach as more pressure is put on the lower back. When sleeping on the side, keep your knees and hips bent for the least amount of pressure on the lower back.

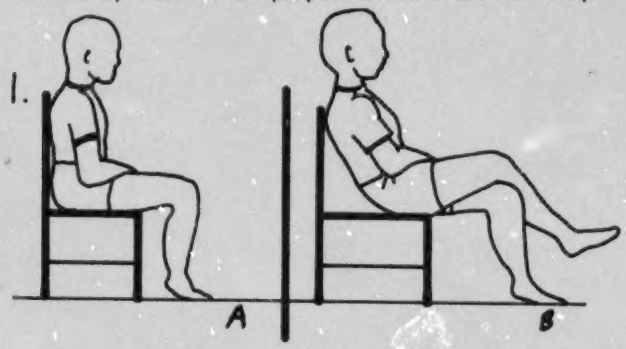
No matter whether you are at home, work, or school, injuries can occur. They are less likely to happen, however, if you remember the tips for correctly standing, walking, sitting, lifting, driving, and sleeping.

BODY MECHANICS FOR THE OFFICE ENVIRONMENT

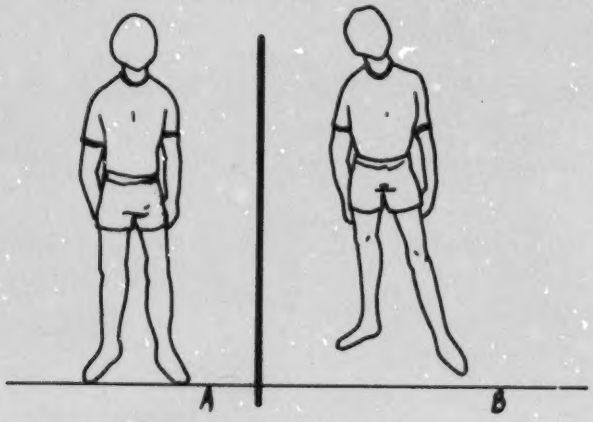
Test #1

PROPER TECHNIQUES Score_____ Name _____

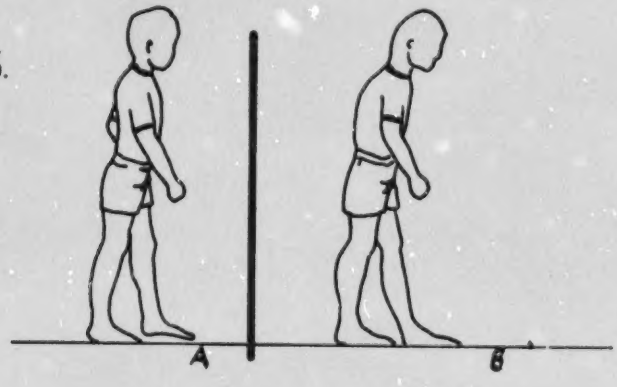
DIRECTIONS: From the two pictures presented beside each of the topics below, circle the letter to the right that corresponds with the proper manner of each technique.

1. 

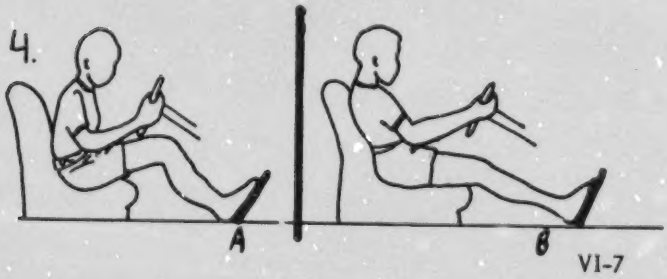
Sitting
A B

2. 

Standing
A B

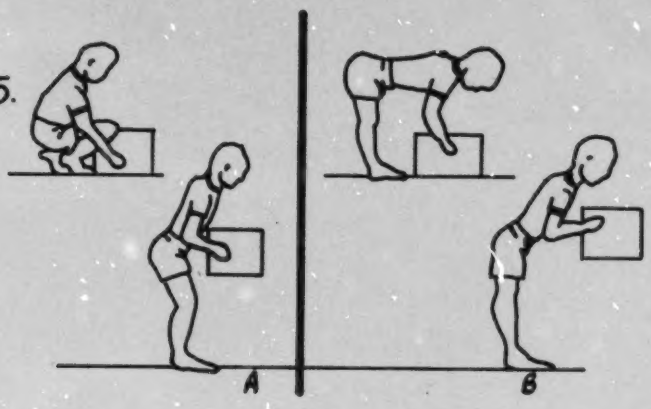
3. 

Walking
A B

4. 

Driving
A B

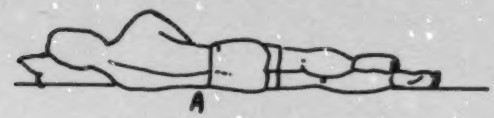
5.



Lifting

A B

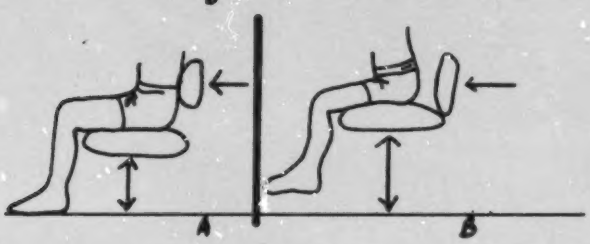
6.



Sleeping

A B

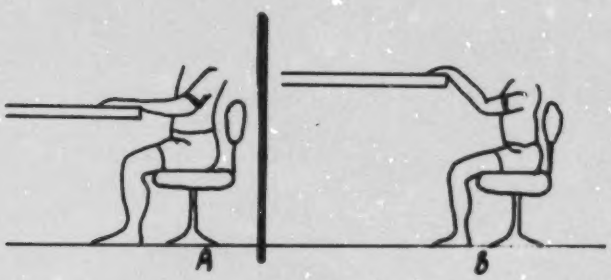
7.



Proper Chair

A B

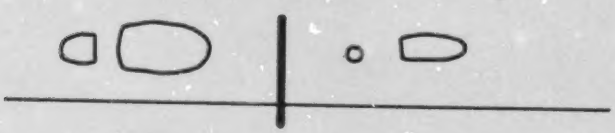
8.



Desk Height

A B

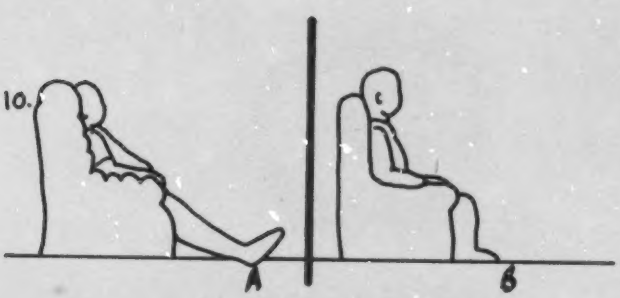
9.



Shoes

A B

10.



Relaxing

A B

144

KEY TO TEST NO. 1

Proper Techniques

All proper techniques are depicted on the left and labeled A.

TEST NO. 2

Causes Of Back Injuries

List at least five causes of back injury that may occur in the office environment.

KEY TO TEST NO. 2

Causes of Back Injuries

Remember that answers may vary with your class. Students may have discovered other hazards from studying different businesses.

1. Walking into obstructions (open desk drawers, file cabinets drawers, chairs)
2. Slipping on paper, staples, paper clips, spills, etc., on the floor
3. Leaning back in chairs that have rollers
4. Falling down stairs because they may not be well-lighted, cluttered, or slippery
5. Running on slippery floors
6. Tripping on floor mats or carpet that is badly worn or improperly installed
7. Leaning over furniture to close windows or to reach for materials

TEST NO. 3

Body Mechanics

Read each of the statements carefully. If the statement is true, place a + in the blank to the left; if it is false put a 0 in the blank.

1. _____ Office workers are more prone to back injury than any other group of working persons.

2. _____ Even though the office is relatively safe as compared to many other industries, over 40,000 accidents occur in the office environment yearly.

3. _____ The most injury-prone part of your body is your back.

4. _____ Ergonomics is the science that is concerned with fitting the worker to the work place.

5. _____ Whenever you must sit for long periods of time, eleviate fatigue by getting up and moving around frequently.

6. _____ The best kind of chair for someone who sits a great deal is a tufted or overstuffed soft chair.

7. _____ If you should stand for long periods of time, the best way to eleviate fatigue is to distribute your weight evenly on both feet and avoid shifting weight from one foot to the other.

8. _____ A low-heel shoe can prevent fatigue if you must stand for long periods of time.

9. _____ Not only are high heel shoes bad for your back, but they also are the cause of many accidents involving falls in the office.

10. _____ Women should not lift objects weighing over 30 lbs.

11. _____ If you lift a very light-weight object, you may bend over and lift with your legs.

12. _____ Whenever lifting objects, squat directly in front of the object holding the object close to your body.

13. _____ Back injuries cost American industries over $2 billion a year in lost time, medical benefits, and insurance costs.

14. _____ Avoid lifting objects above your waistline.

15. _____ When driving for long periods of time, stop every few hours to walk around and stretch to prevent fatigue.

KEY TO TEST NO. 3

Body Mechanics

1. 0
2. +
3. +
4. 0
5. +
6. 0
7. 0
8. +
9. +
10. +
11. 0
12. +
13. +
14. +
15. +

REFERENCES

Kaplan, Archie. **Modern Office Procedures.** "White Paper Report--The Ergonomics of Office Automation," May 1982, 51-62.

Riker Laboratories Inc. Pamphlet No. 91579.

You and Your Back. Channing L. Bete Co., Inc., 1980.

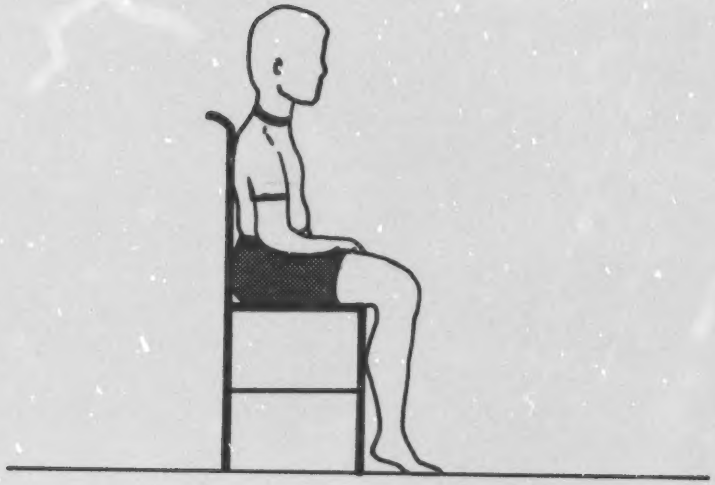
Modern Office Procedures. "White Paper Report," June, 1983, pp. 58-59.

Taylor, Pam. **The Spine.** Mid-Carolina Electric Cooperative.

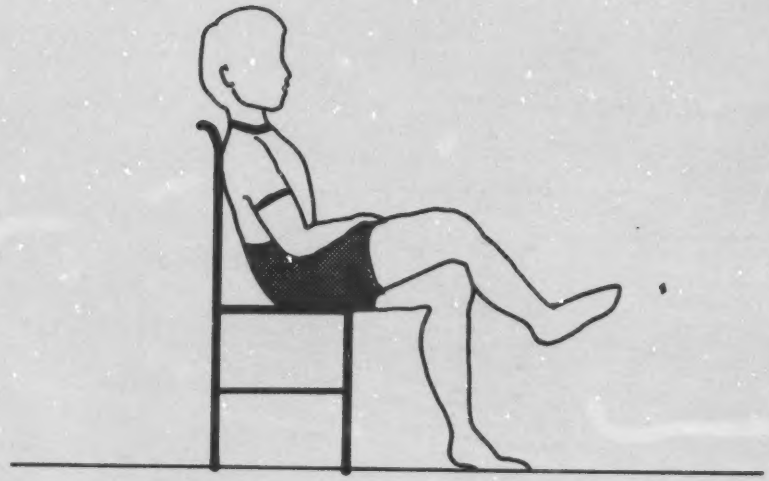
Films

National Safety Council
"File It Under Falls, Miss King" (#171.09)
"Down at the Office" (#10)
South Carolina Electric and Gas Company in Columbia will loan these films at no charge.

Sitting

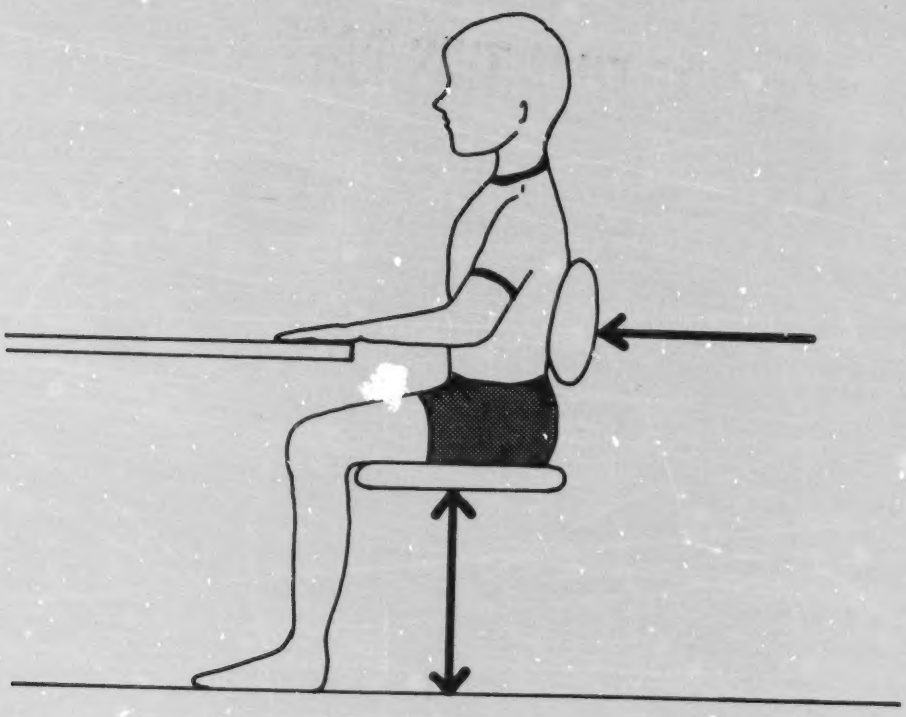


Correct

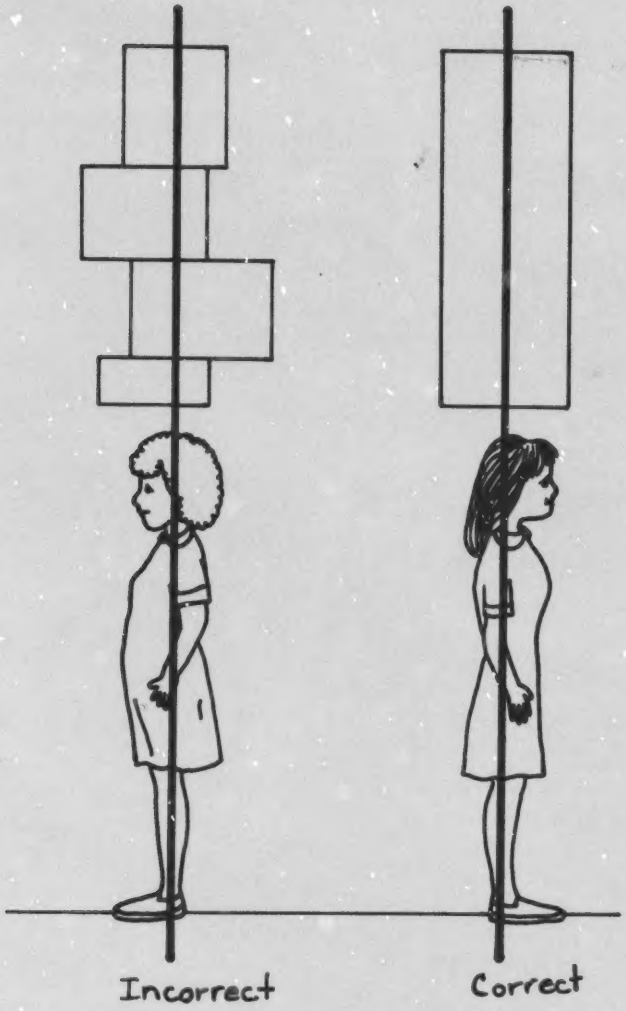


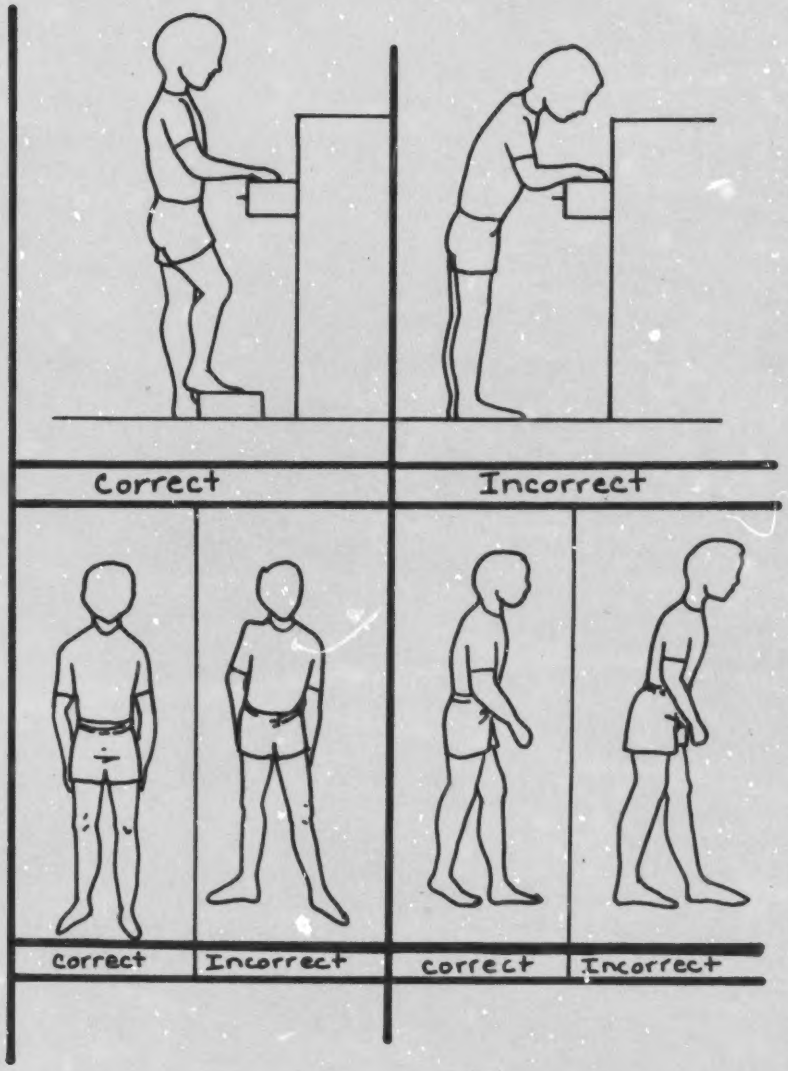
Incorrect

Seating



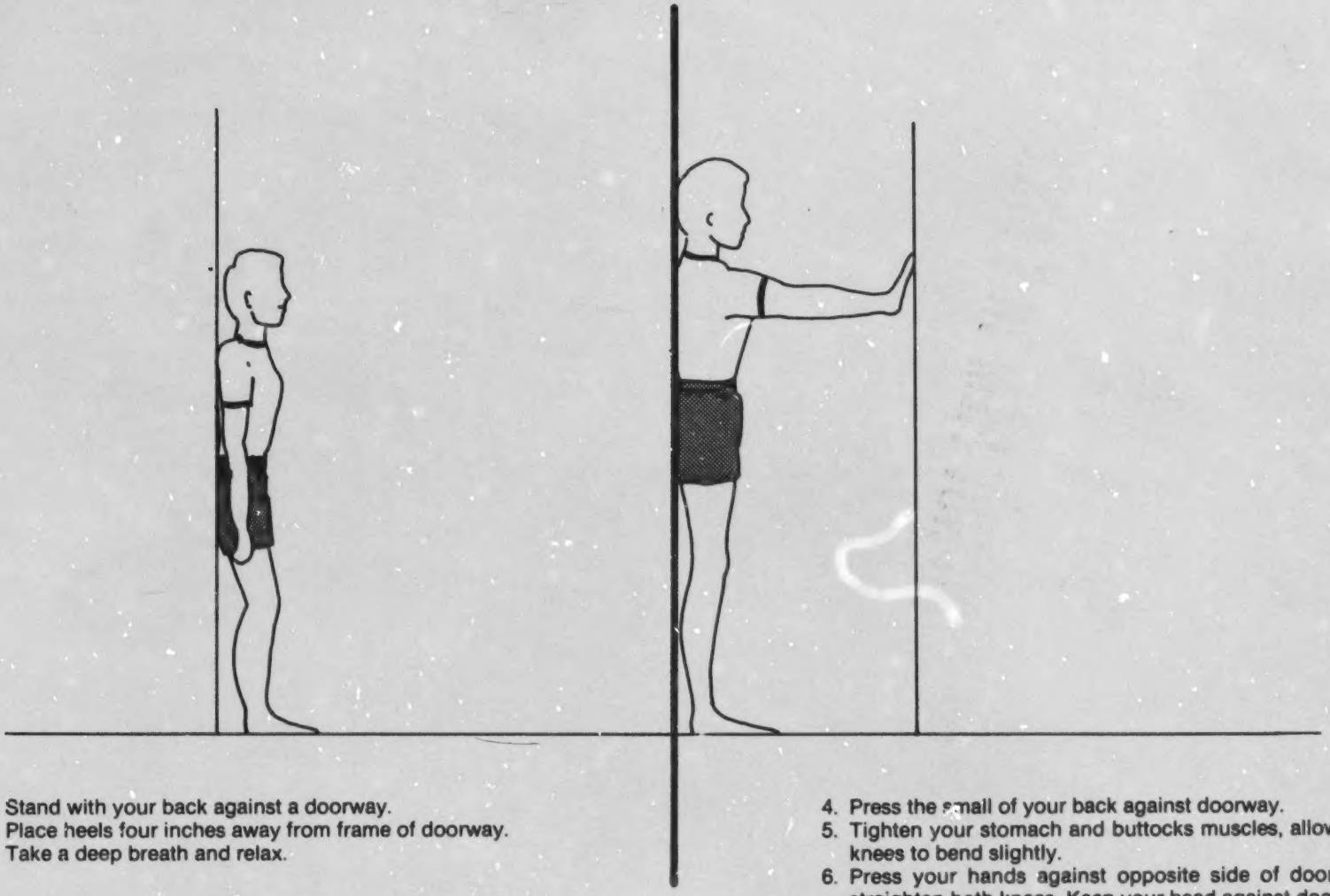
Standing and walking





TM #3
Standing and Walking
BODY MECHANICS FOR THE OFFICE ENVIRONMENT

1. Stand erect.
2. With one hand, grasp the thumb of the other hand behind the back.
3. Pull hands downward toward the floor.
4. Stand on toes and look at ceiling while exerting downward pull.
5. Hold momentarily; relax.

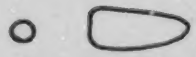


1. Stand with your back against a doorway.
2. Place heels four inches away from frame of doorway.
3. Take a deep breath and relax.

4. Press the small of your back against doorway.
5. Tighten your stomach and buttocks muscles, allowing your knees to bend slightly.
6. Press your hands against opposite side of doorway and straighten both knees. Keep your head against doorway and your neck straight. Hold for two seconds.
7. Relax.

TM #5
Doorway Exercise
BODY MECHANICS FOR THE OFFICE ENVIRONMENT

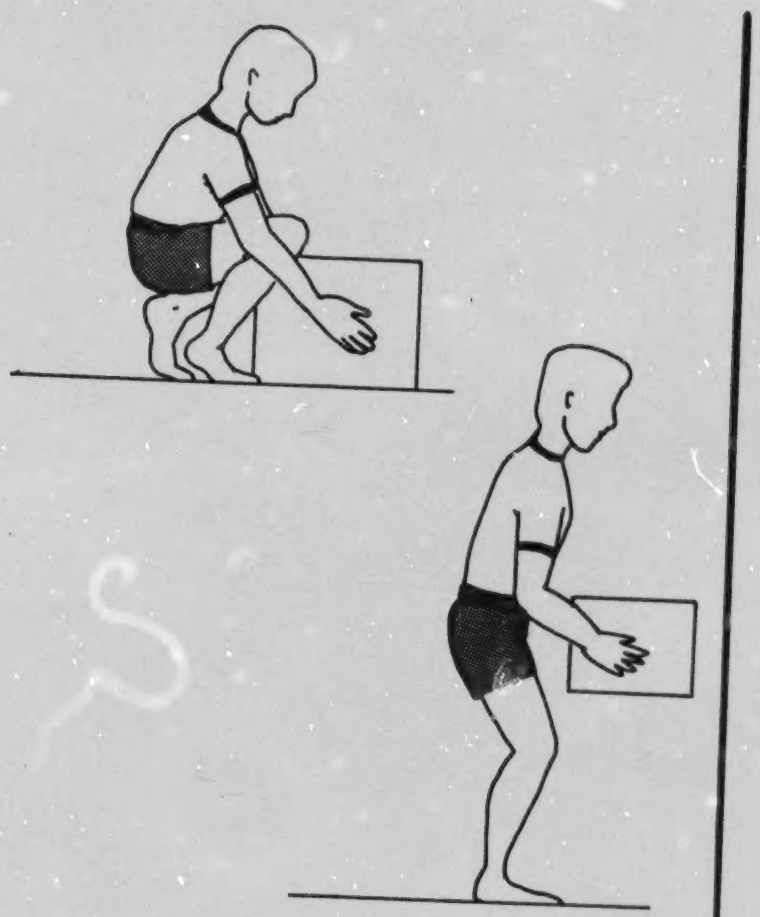
man's
Shoe



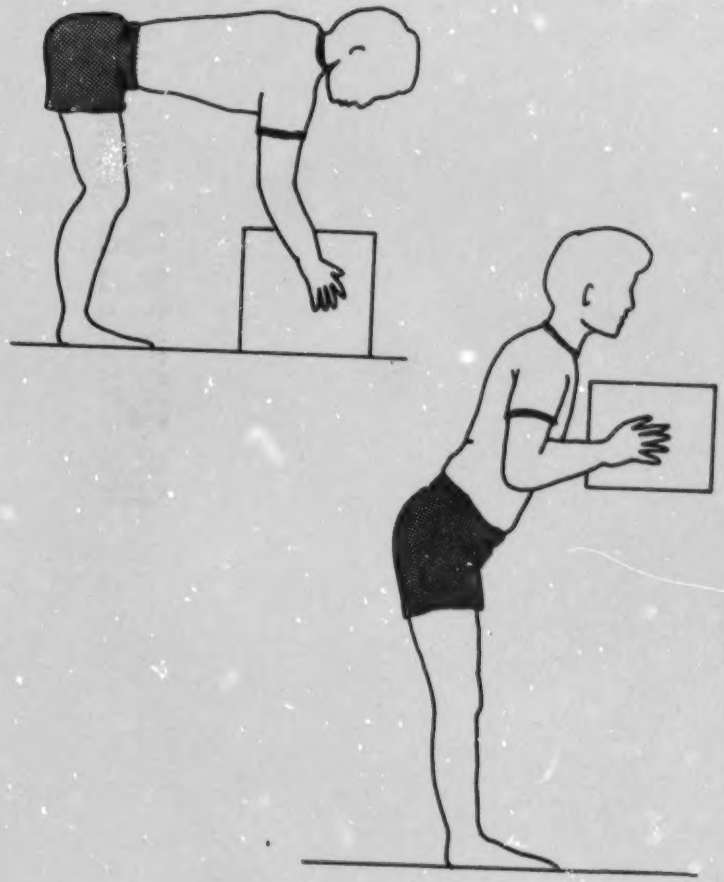
High - heel
Shoe

TM #6
Traction
BODY MECHANICS FOR THE OFFICE ENVIRONMENT

Lifting



Correct



Incorrect

TM #7
Lifting
BODY MECHANICS FOR THE OFFICE ENVIRONMENT

Driving

Correct

Incorrect

TM #8
Driving
BODY MECHANICS FOR THE OFFICE ENVIRONMENT

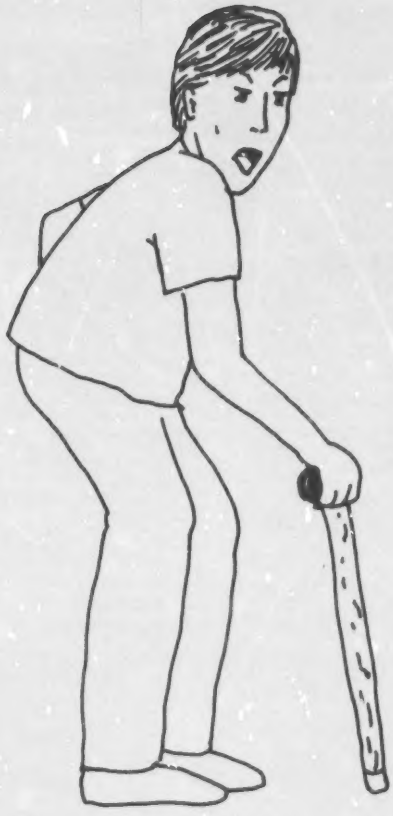
Sleeping

Correct

Incorrect

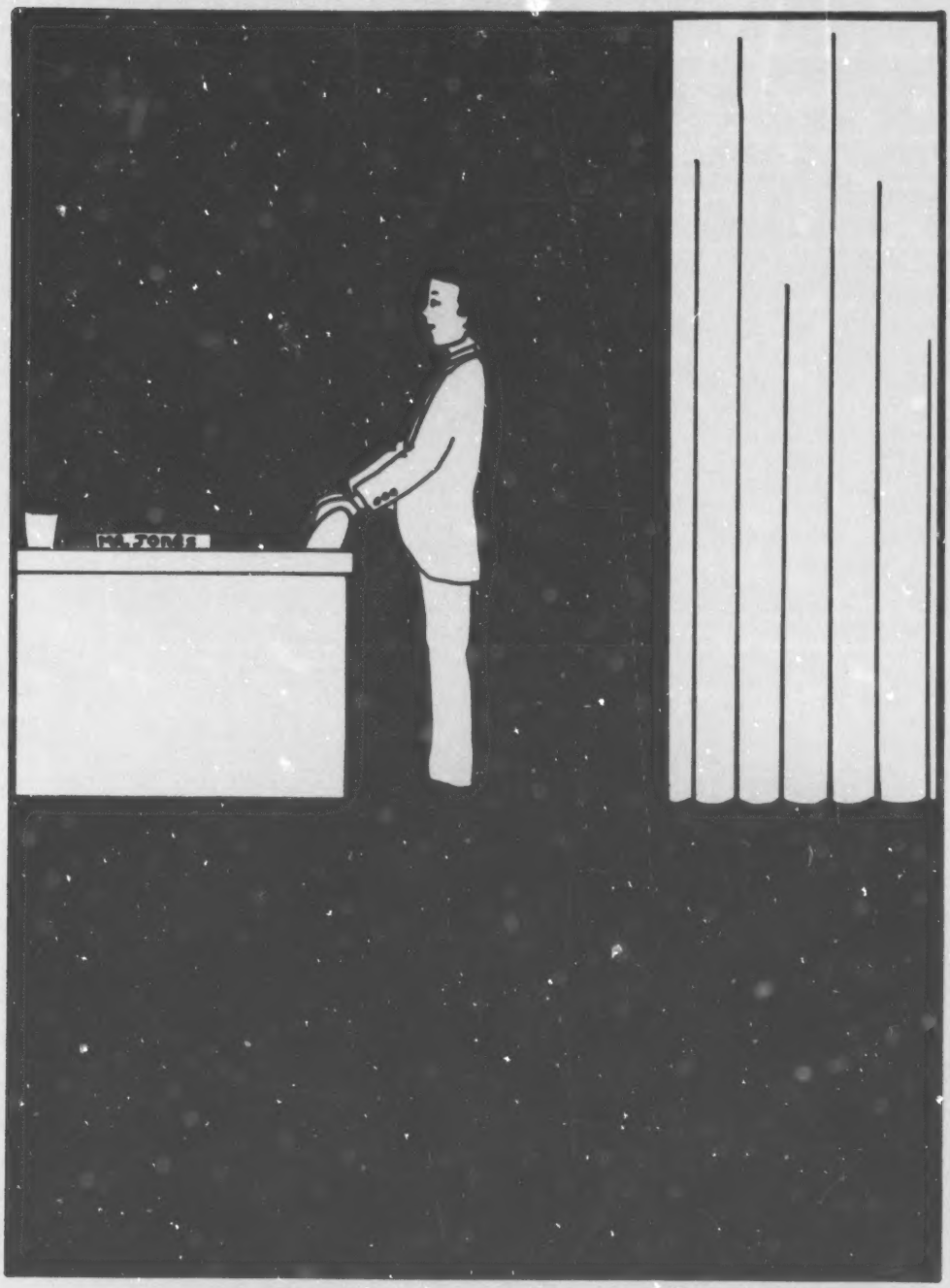
Your Back ... It Lets You

Walk
Sit
Stand
Lift
Drive
Sleep
Bend
Play



BODY MECHANICS FOR THE OFFICE ENVIRONMENT: Bulletin board item

TECHNIQUES FOR DEALING WITH STRESS IN THE BUSINESS OFFICE



LESSON TOPIC: TECHNIQUES FOR DEALING WITH STRESS IN THE BUSINESS OFFICE

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to:

1. Identify the causes of stress in the office.
2. Identify the eight basic areas that can be changed to increase job satisfaction.
3. Identify ten tips to help control stress.

RESOURCES

Overhead projector
Transparencies

LEARNING ACTIVITIES

1. Have the student read the Student Information Sheets.
2. Discuss information given on Student Information Sheets.
3. View transparencies #1-7 in relation to the discussion.
4. Have the student practice the exercises that can be done at the desk.
5. Have the student complete Assignment Sheets Nos. 1-3.
6. Evaluate the student's mastery of the lesson. (A suggested test is provided.)

EVALUATION: Mastery of the learning objective for this lesson will be determined by these requirements. (A suggested test is provided.)

1. List with 90% accuracy ten causes of stress.
2. List with 100% accuracy ten tips for controlling stress.
3. List with 100% accuracy the eight areas that can be changed to increase job satisfaction.

OUTSIDE CLASS ACTIVITIES (PRE AND POST)

1. Have the student to try an experiment: Play different types of music at low levels during study periods at home. Try to determine if the type of music has any effect on you or your ability to study.

2. Have the student to plan a 15-minute, personal exercise routine. (Remember before beginning any exercise that the approval of a physician should be sought.)

TECHNIQUES FOR DEALING WITH STRESS IN THE BUSINESS OFFICE

What is Stress?

In the past, stress was not considered a hazard to the office worker. Today, stress has crept into the office, due, in part, to the increasing number of procedures being used in factories to try to promote productivity.

In order to understand stress and its impact on the office, it must be defined. According to Dr. Hans Selye, a noted authority on stress, stress can be defined as "the nonspecific response of the body to any demand made upon it."[1] In order for the body to continue functioning and protect it from harm, stress is a natural reaction to both normal and abnormal occurrences.

There is no escape from stress. Not all stress is considered bad. In fact, stress can be considered vital to our life. Many of our bodily functions involve a type of stress, such as exercising, digesting, and reacting to cuts or infection. Even "good" stress can be harmful. Specifically, even being too happy can cause such problems as ulcers.

What Causes Stress?

The next step, then, is to determine what causes stress. The list of causes is varied and complex and can be subdivided into five areas.

1. Nature of the job--boring tasks, machine-paced work, lack of job security and sexual harassment
2. Physical factors--lights, video display terminals, noise
3. Societal factors--"keeping up with the Joneses"
4. Personal factors--social life; relations with boss, co-workers and subordinates; family life
5. Weather

[1]Makower, Joel, **Office Hazards: How Your Job Can Make You Sick**, 1981, p. 126.

A breakdown of some of the causes of stress can be seen in a survey conducted by the Working Women Education Fund in Boston and Cleveland in the fall of 1980. (TM#1) The top three causes listed seem to be repeated often in other surveys: lack of promotions and raises, low pay, and monotonous, repetitive work. Other sources of stress include supervision problems, heavy workload and overtime, unclear job descriptions, lack of support from management, and no input into the decision making process.

What Are the Results of Stress?

When the human body reacts to stress, several common physical reactions can occur.

1. Increase in breathing and heartbeat
2. Increase in the secretion of stomach acid
3. Increase in hormones that affect metabolism
4. Emergency release of adrenalin
5. Rise in blood sugar levels in the blood (which, in turn, goes to the muscles, thus creating tension)
6. Rise in cholesterol levels
7. Queasiness or loss of appetite
8. "Butterflies" in stomach
9. Nausea or stomachache

Normally, the body will return to normal after the stressful situation has passed. However, if the stressful situation is prolonged or the individual is subjected to frequent occurences of stress, the normal body reactions can become extremely harmful. For example, the higher levels of cholesterol can cause a greater incidence of coronary heart disease. Even if this particular ailment is passed by, there is still the possibility of ulcers, hypertension (high blood pressure), or nervous disorders.

Whom Does Stress Affect?

Stress affects people differently. Two factors that seem to have a marked affect on how stress affects a person are the gender and family life of that person.

According to studies, women seem to suffer more from stress than men. Married women with children have greater risks of heart disease than have single women. The demands of working outside the home plus raising a family appear to be too demanding for some women to handle. What is interesting to note here is that the more members there were in the family, the greater the risk of heart disease to the woman. Other contributors to heart disease discovered in studies included nonsupportive bosses, suppressed hostility, and few job changes over a ten-year period.

Do men suffer from stress? Men do suffer from stress but in different ways. Perhaps women are more forthright in assessing their feelings and other emotional aspects when faced with stressful situations. These explanations are not proven facts, but results from surveys and studies; many times the results are based only on the participant's answers to questions.

Physically, women appear to suffer more from stomach upsets and nonspecific ailments. Psychologically, women report feelings of depression, feeling on the verge of a breakdown, feeling overwhelmed, feeling that life is to much for them and nightmares.

The studies all seem to point back to one factor--the link between stress at home and at work. People tend to bring home their stressful feelings from what happened at work. These feelings in turn act upon the family, friends, and neighbors. Eventually, the worker may become a victim of mental or physical illness, drug abuse, alcoholism or even violence.

Probably the biggest factors that create more stress from women than men are the facts that women are still paid less for the same work as men, and promotions are still slow for women in many instances.

Environment

The office environment also has an affect on stress. One problem is noise--unwanted sounds. Probably the sudden, irregular sounds can be more of a threat than continuous noise.

Some offices can have high noise levels. In a room filled with equipment such as typewriters, copiers, high speed printers, etc., the noise level can become high. The limit set by the Occupational Safety and Health Administration is 90 decibels for an eight-hour day.

If the inner ear becomes tired and hearing is temporarily reduced, rest can usually restore hearing to normal. If the noise is too loud or continuous, hearing damage can result.

The "open" office has come under fire for noise level problems. In such offices, partitions are used to create work areas. The partitions are usually five to six feet high and may be covered with carpet, plastic, steel or any other material. In other words, they do not absorb sound effectively.

In these open offices, sound can travel three different ways: by going through the partition itself; by going over a partition and being reflected off the ceiling into the next work area; or by diffraction, that is, hovering around, over, and under partitions and into other work areas.

Effects of noise have been reduced in some offices through the use of "masking" the sound. One way of masking is called "white noise." This is a sound like a water fountain or a television station off the air. Masking does not always work and is not always very popular.

Another familiar form of masking is Muzak. Muzak is developed by the Muzak Corporation and is termed a "scientific process of determining music that will enhance productivity and either relaxes or excites an individual."[2] Muzak creates all of its music and does not repeat any programs. There are no conclusive studies, however, that prove that Muzak does enhance the productivity of the worker.

Another environmental problem is office space. Office space is expensive, especially in the larger cities. Overcrowding has become a problem as businesses must try to do more work in less space.

For some workers, crowding can downgrade job performance and produce discomfort. Other workers find that closeness enhances some aspects of their job. Work satisfaction increases as workers have an opportunity to have feedback, to share task performance, and to develop friendships among fellow workers.

What About High Technology Equipment?

In the lesson "Precautions for Use of High Technology Equipment," it was noted that stress seems to be one of the major outcomes in working with high tech equipment. Working with video display terminals brings out the stressors of boredom, monotony, and inflexibility.

The use of VDTs has alienated many workers and created job dissatisfaction for others. Many VDTs have been set up to control completely the operator's performance. For example, at a telephone company service center near Boston, operators process customer orders on VDTs. An assigned schedule is used for reporting to work, for taking breaks and for eating lunch. When it is time to take a break, the computer screen will notify the worker. Computers will make a report to the supervisor when breaks began and ended and any other times that an employee signs off from the machine.

[2]Makower, Joel, **Office Hazards: How Your Job Can Make You Sick**, 1981, pp. 139-40.

Some companies have gone to a production schedule with their high tech equipment. For example, a banking institution or even a large utility company can require that a minimum number of checks be processed a day (for example, 4,000 a day or one check every six seconds). Keep in mind that this is a minimum figure and management would actually expect more checks to be processed. From these two situations, one can easily see why the office worker would show signs of stress.

Nutrition and Exercise

Poor eating habits of many office workers also contribute to the complaints of headaches, stress, fatigue, and other illnesses. The coffee break is the biggest cause of the poor nutrition problem.

Coffee and its connection with caffeine have been the subject of many recent studies. A person who has been accustomed to drinking coffee and then is cut off will suffer caffeine withdrawal symptoms which include drowsiness, irritability, headaches and lethargy. If a high intake of caffeine is maintained, the individual can suffer from rapid heart rate, irritability, nervousness and muscle twitchings.

Caffeine is a stimulant and can be found in coffee, tea, and soft drinks. This stimulant can make your body react as if it were an elevator--it can go up high and come down low. Bodily functions that can be affected include increased heart rate, stimulated brain, increased stomach acid secretions, widened coronary arteries, increased overall metabolic rate, and increased bladder and kidney action. Blood sugar can also rise rapidly. The reverse can then happen--all of the above functions fall resulting in fatigue, irritability, and anxiety.

If a sweet roll or doughnut is added to the coffee, blood sugar can shoot up even higher and faster and then fall farther. Tobacco smoke also contributes to the process. According to one study, the more you smoke, the more coffee (caffeine) you want. As smoke speeds up the elimination of caffeine, thus the need for more caffeine is increased.

Where do you draw the line, or do you eliminate caffeine? The answer depends on the individual's tolerance for caffeine. Two cups of coffee a day is probably sufficient. Try substituting all or part of your coffee blend with a decaffeinated blend. Ask for a variety of coffee blends in the company's machine or bring your own. If you are a non-coffee drinker, there are many soft drinks on the market today that are caffeine free. As for the sweet treat, try substituting a high protein snack. Not only is it more beneficial and nutritious, it is also less fattening!

The protein snack is better for you, too because your body becomes less able to use protein during periods of stress. Therefore, after periods of stress, you should try to eat fish, lean meat or milk products. Vitamin C also needs to be replenished after a period of stress. Citrus products are a good source for vitamin C.

How Valuable is Exercise?

Exercise is vital to the well-being of any individual. The average office worker does not get much exercise during the normal working day. It is known that exercise can relieve emotional and muscular stress. If possible, try to work in a daily exercise routine--even 15 minutes a day would help.

There are several exercises that you can even do at your desk to relieve tension. Of course, not everyone would feel comfortable with "exercising" at the desk, but knowing these exercises can be valuable when the tension gets muscles all "tied in knots."

The following exercises are from **The Working Woman's Body Book** by Lilian Rowen with Barbara Winkler. These exercises are specifically designed for those areas affected by desk work.

Eye Roll - To help relieve eyestrain do this exercise.

1. Try to picture a clock on the wall directly in front of you.
2. Focus on each number of the clock keeping your eyes wide open. As you focus on each number, hold for a count of five.
3. Repeat for each number; then do again, counterclockwise, two more times.
4. If you do the exercise correctly, you should see different things each time you move around the clock.

Leg Un-Cramper (TM#2)

1. Stretch one leg straight in front of you and hold until you count to five.
2. Bring your leg back down.
3. Repeat the exercise for the other leg.
4. Repeat the exercise with both legs together.
5. Repeat five times.

Shoulder Shrug - This exercise should help relieve shoulder and neck tension. (TM#3)

1. Bring your left shoulder up to your ear. Lower your shoulder to normal position.
2. Repeat the exercise with your right shoulder.
3. Next, lift both shoulders together
4. Move one shoulder at a time in a circular motion, going forward and backward.
5. Now move both shoulders together in a circular motion.

Back Stretcher - To get rid of back strain try this exercise. (TM#4)

1. Grab the back of the chair with both of your arms and then turn to the right.
2. Return to the center and then turn to the left.
3. Repeat the exercise five times for each side.

The following exercises to help relieve tension can be done at home. Exercises should be done for five minutes to relieve tension.

Fetus - Good overall relaxer. (TM#5)

1. To assume the fetal position, kneel with your derriere resting on your heels. Place your arms at the side of your body and your head on the floor.
2. Now let every muscle in your body go absolutely limp, including your facial muscles.
3. Hold for 30 seconds to 1 minute.

Prime Unwinder - Relaxes entire body.

1. Lie down with your back on the floor and your arms at your sides. Close your eyes.
2. Begin by breathing deeply, in and out, for a total of 20 counts.
3. Rotate right ankle; relax.
4. Repeat with left ankle.
5. Tighten right thigh; relax.
6. Repeat with left thigh.
7. Continue to tighten and then relax the following: stomach, buttocks, right arm, and left arm.
8. Now "scrunch-up" your face and then release.
9. Let your whole body go totally limp; then tighten and go limp again.
10. Remember to breathe deeply while inhaling through the nose and exhaling through the mouth.
11. This exercise should take only one minute.

Elbow Circles - This exercise should relax tense neck and shoulder muscles. (TM#6)

1. Sit with your back straight in a crosslegged position.
2. Place your fingertips on your shoulder caps and then rotate your elbows in a big circle backward.
3. Pause.
4. Repeat three times, remembering to pause between circles.
5. Reverse direction and do three forward circles.

Shoulder Loosener - This exercise should ease shoulder tension. (TM#7)

1. Sit with your back straight in a crosslegged position.
2. Interlock your fingers behind your back and rest your palms on the floor.
3. Lift and stretch your arms upward which should pull your shoulders together.
4. Drop your arms and then slump forward.
5. Return to your beginning position and repeat for a total of five times.

These are just a few exercises that might be helpful in releasing tension and relieving stress. Work out a program that suits you best.

There are some companies that are totally involved in a fitness program for their workers. Companies such as Levi Strauss & Co., Xerox, Kimberly-Clark, Pizza Hut, and Control Data have built fitness centers and developed programs to benefit their employees. Of course, this plan cannot be used by every company as it would be too expensive for the smaller business. Fitness programs can be developed through a local fitness center or YWCA/YMCA with the business. An instructor could also be hired to come in on afternoons and hold classes for employees.

As you can see, employers are beginning to see that a healthful employee is a productive employee. Fitness programs in companies have also seemed to help cut down absenteeism due to sickness.

One other technique for handling stress is called visualization. In visualizing you try to form a mental image of something pleasant or calming. For example, you could visualize soaking in a hot tub with all the tension just floating away. It is possible to find classes in visualizing at some universities.

What Can I Do?

One way to reduce stress at work is to create more job satisfaction and improve the quality for work life. Since stress at home can affect an individual's job performance, tips to help relieve stress in your life are also presented in this section.

The following eight areas can be adapted at the individual, company, and national level to help improve an employee's work life.[3]

1. Wages and rewards--Recognition for work well done or other contributions should be available.
2. Supervision and resources--Enough support and information to get the job done should be provided.
3. Task content--Work should be interesting and workers should be given the opportunity to use their special abilities.
4. Working conditions--Not only should physical surroundings be pleasant and conducive to productivity, but workers should be given enough time to complete the job without being "timed" by a computer.
5. Congenial relations with co-workers--Workers should be given the opportunity to discuss task performance and receive feedback from fellow employees.
6. Autonomy and control--Employees should be given the freedom to decide the best way to do the work.
7. Promotions--Promotions should be handled fairly and employees should be assured of chances for promotion.
8. Organization context--The organizational properties of the company such as growth rate, size, and managerial philosophy that determine or affect the quality of life for the worker should have some employee input.

To help control stress in your life, try the following strategies:[4]

1. Work off stress--Engage in a physical activity such as playing tennis or even taking a walk.
2. Talk out your worries--Choose someone that you trust and respect. Talking things out with another person may help you see a solution to the problem.
3. Learn to accept what you cannot change--If the problem is beyond what you can change, accept it until some future time when you can change it.
4. Avoid self-medication--Don't use alcohol or drugs to control stress. You will probably end up in more anxiety than ever. Remember that helps comes from inside you, not outside.

[3]Kahn, Robert L., **Work and Health** (John Wiley & Sons, 1981).

[4]**Current Health**, Vol. 3, No. 8, (Highwood, IL: Curriculum Innovations, Inc., 1977), pp. 24-25.

5. Get enough sleep and rest--If you don't get enough sleep, you become irritable and less able to handle stress. The normal length of sleep needed is seven to eight hours.
6. Balance work and recreation--Make time for some type of relaxation to ease your mind. Even a little loafing can be good for you, but not constantly!
7. Do something for others--Get your mind off yourself by helping others.
8. Take one thing at a time--Work on only one task at a time. Trying to do too many things at one time is too overwhelming.
9. Give in once in a while--If your problem is other people, try giving in instead of fighting. Don't insist that you are always right.
10. Make yourself available--Don't withdraw and feel sorry for yourself. Get involved in some project in your community, but don't spread yourself too thinly.

ASSIGNMENT SHEET NO. 1

Job Satisfaction Word Find

Hidden below are 12 key words that pertain to achieving job satisfaction and relieving stress. The words may be found going up, down, or diagonally, either frontwards or backwards.

S E G A W O R G I L G E S A C M D O
F N Z T R E K B E Q P X J U O S I R
S L C O N T R O L H F M C W N U T G
P Y Y M O N O T U A D W S K G R M A
B V N S I E H K R Z K N J E E S F N
J O B S A T I S F A C T I O N E E I
E E R T Q N U K M O D Y P O I S A Z
S E C R U O S E R B C E I O A Z V A
P S D S C C M R E L A T I O L S E T
R U I K H K T E W A O L P E R I P I
Q P C I R S M O O M G P U B E L W O
Z E Y C D A T I O M E G K S L A O N
R R O K B T E R R C B E V I A T L A
Z V H F I E P Q A X E R I C T M S L
P I S A T A L E N C E U H J I X W C
E S D F G Y J M O W I V Z A O B C O
A I B R S I M C A N P E W N N L S N
S O N G I K E R A P P L E S S I T T
S N O I T I D N O C G N I K R O W E
T H E I F S A N D B C E P R T I O X
S T R E S S E S O L O W C Y M U J T

ASSIGNMENT SHEET NO. 1 KEY

Job Satisfaction Word Find

S	E	G	A	W	O	R	G	I	L	G	E	S	A	C	M	D	O
F	N	Z	T	R	E	K	B	E	Q	P	X	J	U	O	S	I	R
S	L	C	O	N	T	R	O	L	H	F	M	C	W	N	U	T	G
P	Y	Y	M	O	N	O	T	U	A	D	W	S	K	G	R	M	A
B	V	N	S	I	E	H	K	R	Z	K	N	J	E	E	S	F	N
J	O	B	S	A	T	I	S	F	A	C	T	I	O	N	E	E	I
E	E	R	T	Q	N	U	K	M	O	D	Y	P	O	I	S	A	Z
S	E	C	R	U	O	S	E	R	B	C	E	I	O	A	Z	V	A
P	S	D	S	C	C	M	R	E	L	A	T	I	O	L	S	E	T
R	U	I	K	H	K	T	E	W	A	O	L	P	E	R	I	P	I
Q	P	C	I	R	S	M	O	O	M	G	P	U	B	E	L	W	O
Z	E	Y	C	D	A	T	I	O	M	E	G	K	S	L	A	O	N
R	R	O	K	B	T	E	R	R	C	B	E	V	I	A	T	L	A
Z	V	H	F	I	E	P	Q	A	X	E	R	I	C	T	M	S	L
P	I	S	A	T	A	L	E	N	C	E	U	H	J	I	X	W	C
E	S	D	F	G	Y	J	M	O	W	I	V	Z	A	O	B	C	O
A	I	B	R	S	I	M	C	A	N	P	E	W	N	N	L	S	N
S	O	N	G	I	K	E	R	A	P	P	L	E	S	S	I	T	T
S	N	O	I	T	I	D	N	O	C	G	N	I	K	R	O	W	E
T	H	E	I	F	S	A	N	D	B	C	E	P	R	T	I	O	X
S	T	R	E	S	S	E	S	O	L	O	W	C	Y	M	U	J	T

ASSIGNMENT SHEET NO. 2

Discussion or Role Playing

In order to determine the causes of stress and the techniques for dealing with stress, the class can participate in group discussions or role playing situations.

1. Divide into groups of four students.
2. Each group will be given a stressful situation to discuss. (Or, they may decide upon their own stressful situation.)
3. Students should then decide upon what technique(s) to use to control the stressful situation.
4. Students will present their situation and solution to the class.

Examples of situations to use

1. Your boss suddenly hands you ten letters that must be mailed before you go home. It is 4:45 and office hours are over at 5 o'clock. You also made an appointment to meet someone at 5:30. What do you do?
2. You work all day at a video display terminal. You notice that you suffer from headaches and tense neck and shoulder muscles. You seem to be very irritable and tend to snap at your co-workers. What do you do?
3. One of your co-workers tells you that one of the other workers has been telling everyone else in the office some confidential information and stated you were the source of the information. Yet, you know that you did not give out this information. What do you do?
4. Your firm has just installed computers. Although employees were given some training, you feel very unsure. Your employer is also starting to discuss implementing a new production plan with the computers keeping track of how much material each employee processes. All of the employees have been discussing the plan and expressing great concern and even anger. What do you do?

ASSIGNMENT SHEET NO. 2 KEY

Discussion or Role Playing

Answers to the stress situations will vary. Check to determine that students understand the causes of stress and know the techniques to be used in solving the problem and controling the stress.

Refer to Student Information Sheets and review aloud the pertinent points.

ASSIGNMENT SHEET NO. 3

Job Satisfaction Scramble

Some people consider it a real "scramble" to achieve job satisfaction with having to overcome all the tension and stress. In this exercise, however, it will be easy for you to achieve job satisfaction just by unscrambling the words in the following items.

1. _____ (ktsa ntcento)

   Hint: Work should be interesting.

2. _____ (nrkogwi dsicotonin)

   Hint: Enough time to do your work.

3. _____ (somipontro)

   Hint: A chance for employees to rise to the "top"!

4. _____ and _____ (svirunipeso rssuceeor)

   Hint: Enough support and information to get the job done.

5. _____ _____ (lgaiznrtaoalo xtocne)

   Hint: Input on areas that will affect the quality of the work life.

6. _____ and _____ (gewas dseradwr)

   Hint: Salary and recognition.

7. _____ and _____ (tymonaou rotclon)

   Hint: The freedom to decide how to do your job.

8. _____ _____ (longciean sonlateri)

   Hint: Opportunity to speak to co-workers.

ASSIGNMENT SHEET NO. 3 KEY

Job Satisfaction Scramble

1. Task content
2. Working conditions
3. Promotions
4. Supervision and resources
5. Organizational context
6. Wages and rewards
7. Autonomy and control
8. Congenial relations

TEST

1. List ten tips that you would use in controlling stress in your life.

2. List the eight areas of work life that can be changed in order to increase job satisfaction.

3. List ten causes of stress in the office.

KEY TO TEST

If you wish, students can be required to answer more fully on questions 1 and 2.

1. a. Work off stress.
   b. Talk out your worries.
   c. Learn to accept what you cannot change.
   d. Avoid self-medication.
   e. Get enough sleep and rest.
   f. Balance work and recreation.
   g. Do something for others.
   h. Take one thing at a time.
   i. Give in once in awhile.
   j. Make yourself available.

2. a. Wages and rewards
   b. Supervision and resources
   c. Task content
   d. Working conditions
   e. Congenial relations with co-workers
   f. Autonomy and control
   g. Promotions
   h. Organizational context

3. Use any ten of the following answers.

   a. Lack of promotions or raises
   b. Low pay
   c. Monotonous, repetitive work
   d. No input into decision making
   e. Heavy workload/overtime
   f. Supervision problems
   g. Unclear job descriptions
   h. Unsupportive boss
   i. Inability/reluctance to express frustration or anger
   j. Production quotas
   k. Difficulty juggling home/family responsibilities
   l. Inadequate breaks
   m. Sexual harassment

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Neuner, John J. W.; Keeling, B Lewis; and Kallus, Norman F. **Administrative Office Management.** Cincinnati, Ohio: South-Western Publishing Co., 1978.

Casady, Mona. **Word Processing Concepts.** Cincinnati, Ohio: South-Western Publishing Co., 1980.

Periodicals

The Office
Modern Office Technology (formerly **Modern Office Procedures**)
Office Administration and Automation
T.H.E.

Books

Women's Work, Women's Health, Dr. Jeanne M. Stellman
Work Is Dangerous to Your Health, Dr. Jeanne M. Stellman
Word Processing Concepts, Mona Casady
The Working Woman's Body Book, Lilian Rowe with Barbara Winkler
Ergonomics Handbook, IBM
Video Display Terminals . . . The Human Factor, National Safety Council

Booklets

Ergonomics and Visual Display Terminals — A Guide for Managers, IBM
Human Factors of Workstations with Display Terminals, IBM

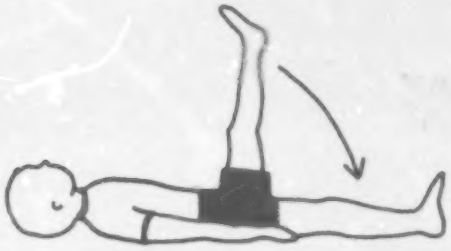
Address for: National Safety Council
Order Department
P.O. Box 11933
Chicago, IL 60611
(312) 527-4800

Sources of Stress in Office Jobs

Source	Rate
Lack of promotions or raises	51.7%
Low pay	49.0
Monotonous, repetitive work	40.0
No input into decision-making	35.1
Heavy workload/overtime	31.5
Supervision problems	30.6
Unclear job descriptions	30.2
Unsupportive boss	28.1
Inability/reluctance to express frustration or anger	22.8
Production quotas	22.4
Difficulty juggling home/family responsibilities	12.8
Inadequate breaks	12.6
Sexual harassment	5.6

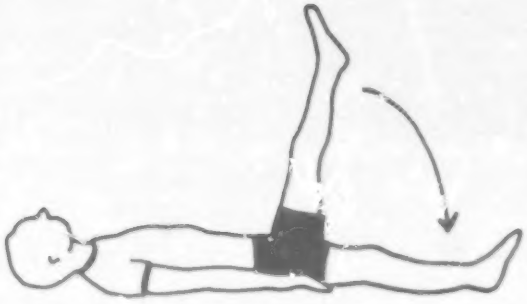
Source: Answers by 915 respondents to survey conducted in Boston and Cleveland by Working Women Education Fund, Fall, 1980.

Leg Un-Cramper

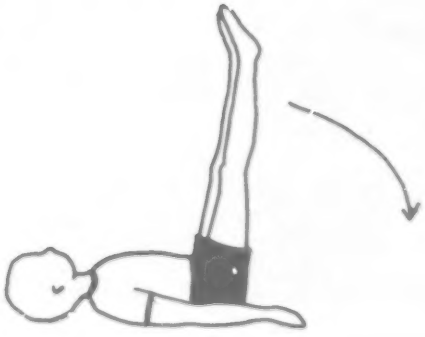


1.12. Lie flat on floor.* Stretch one leg straight in front of you and hold until you count to 5. Bring your leg back down.

[*You may, if necessary, sit in a chair at your desk and proceed accordingly.]



3. Repeat the exercise for the other leg.



4.15. Repeat the exercise with both legs together. Repeat 5 times.

BEST COPY AVAILABLE

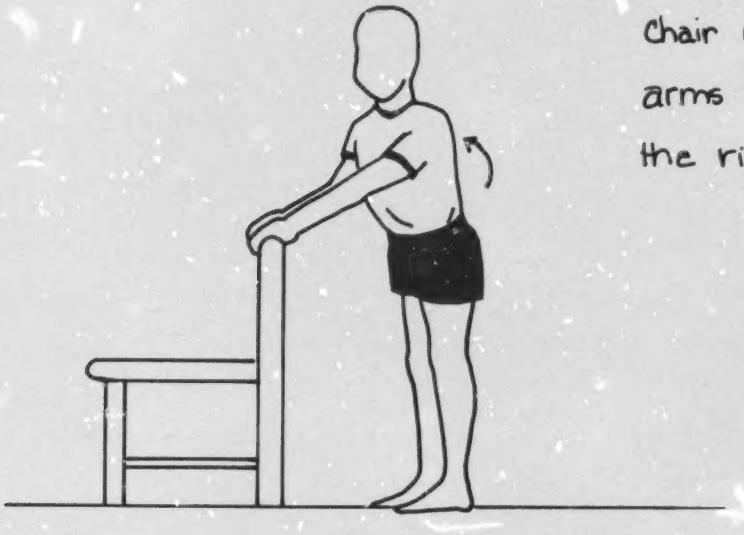
Shoulder Shrug

1. 2. Bring your left shoulder up to your ear. Lower your shoulder to normal position. Repeat the exercise with your right shoulder.

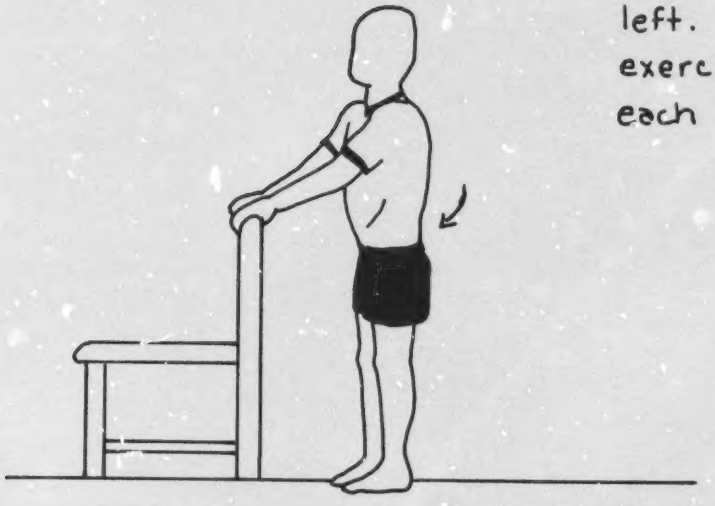
3. Next lift both shoulders together.

4. 5. Move one shoulder at a time in a circular motion going forward and backward. Now move both shoulders together in a circular motion.

Back Stretcher

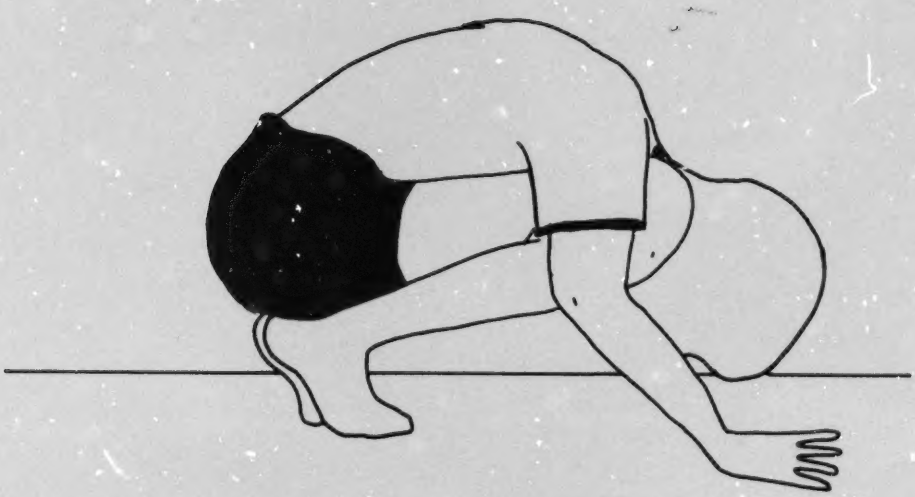


1. Grab the back of the chair with both of your arms and then turn to the right.



2.&3. Return to the center and then turn to the left. Repeat the exercise 5 times for each side.

Fetus

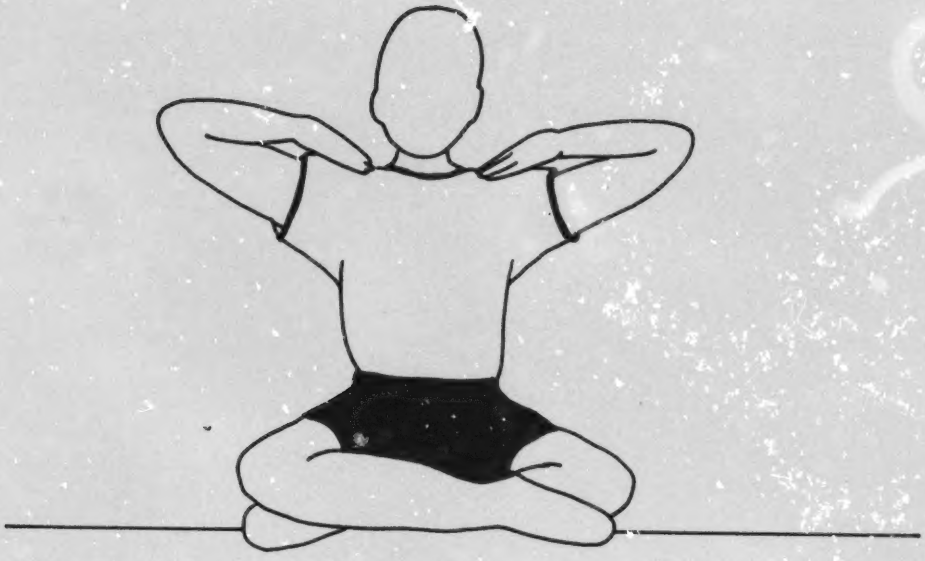


1. To assume the fetal position, kneel with your derriere resting on your heels. Place your arms at the side of your body and your head on the floor.

2. Now let every muscle in your body go absolutely limp, including your facial muscles.

3. Hold for 30 seconds to 1 minute.

Elbow Circles

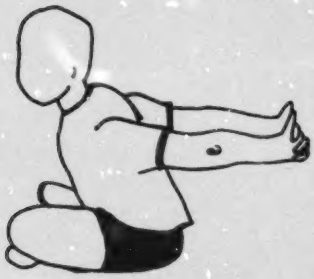


1. Sit with your back straight in a crosslegged position.
2. Place your fingertips on your shoulder caps and then rotate your elbows in a big circle backward.
3. Pause.
4. Repeat 3 times, remembering to pause between circles.

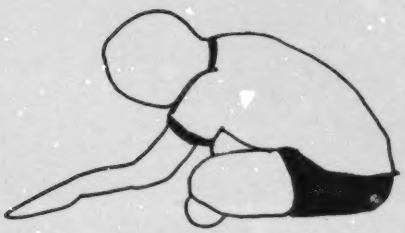
Shoulder Loosener

1. Sit with your back straight in a crosslegged position.

2. Interlock your fingers behind your back and rest your palms on the floor.



3. Lift and stretch your arms upward which should pull your shoulders together.



4. Drop your arms and then slump forward.

5. Return to your beginning position and repeat for a total of 5 times.

EIGHT WAYS TO INCREASE JOB SATISFACTION

WAGES AND REWARDS

PROMOTIONS

CONGENIAL RELATIONS WITH CO-WORKERS

WORKING CONDITIONS

AUTONOMY AND CONTROL

TASK CONTENT

ORGANIZATIONAL CONTEXT

SUPERVISION AND RESOURCES

TECHNIQUES FOR DEALING WITH STRESS IN THE BUSINESS OFFICE: Bulletin board item

If the instructor desires, pictures may be taken from professional journals, etc., and placed strategically to visually depict each of the eight topics. Another suggestion is to ask an artistic student(s) to draw something representative to accompany each topic. (The FBLA members might take the bulletin board as a project.)

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

LESSON TOPIC: PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

LEARNER OBJECTIVES: Upon completion of the learning activities in this lesson, the student will be able to

1. List the first aid steps to follow in a simple accident situation.
2. List the supplies necessary for an office first aid kit.
3. Prepare an Employer's First Report of Injury.
4. Prepare an Employer's Supplemental Report of Injury.
5. Prepare a Log and Summary of Occupational Injuries and Illnesses.

NOTE: This lesson is divided into two parts -- Basic First Aid and Reporting Injuries.

RESOURCES

Typewriter
Overhead projector
Duplication of sample accident forms 2, 3, and 4--minimum of 2 per student
Guest Speaker--Emergency medical technician from local rescue squad or equivalent (optional)
First aid kit (optional)

LEARNING ACTIVITIES

Basic First Aid (Part I)

1. Have student read Student Information Sheets on Basic First Aid.
2. Discuss basic first aid procedures and view corresponding Transparencies #1-4.
3. Discuss the supplies needed in a first aid kit. View Transparency #5 which describes the kit. Note: If a first aid kit is available, have students view it as an example.
4. Have the student complete Assignment Sheet on Basic First Aid Case Studies. Write the answers to each. You may also use these case studies in small group discussions.
5. Evaluate the student's mastery of the lesson by measuring their performance on the final test cases (which are provided in Test #1) and on the test relating to the first aid kit (which is provided in Test #2).

Reporting Injuries (Part II)

6. Have the student read Student Information on Workmen's Compensation.

7. Discuss and demonstrate the different forms used in reporting injuries and illnesses. (Four sample forms are provided.)
8. Have the student prepare the necessary forms for the learning case given in the Assignment Sheet. (Duplicate and distribute **completed** Sample Form 1 and sheet of additional information which are provided. Duplicate and distribute **blank** Sample Forms 2-4.)
9. Evaluate students through their performance on the final test case (which is provided as Test #3). Duplicate and distribute **blank** Sample Forms 2-4. Duplicate and distribute **completed** Sample Form 1 and sheet of additional information which are provided.)

EVALUATION: Mastery of the learning objective for this lesson will be determined by these requirements.

1. List with 100% accuracy the steps to follow in four separate first aid situations.
2. List with 100% accuracy the supplies necessary for an office first aid kit.
3. Prepare with 100% accuracy an Employer's First Report of Injury. (Refer to Sample Form 2.)
4. Prepare with 100% accuracy an Employer's Supplemental Report of Injury. (Refer to Sample Form 3.)
5. Prepare with 100% accuracy a Log and Summary of Occupational Injuries and Illnesses. (Refer to Sample Form 4.)

OUTSIDE CLASS ACTIVITIES (PRE AND POST)

Visit a business and talk to the safety officer, company nurse, and/or personnel director.

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

Basic First Aid

Although safety in the office is not termed a "popular subject" by most corporate executives and office managers, it is being realized that office safety is no laughing matter. Thousands of office workers are injured each year with some injuries resulting in death. There are other cases that go unreported because they are not classified as office related. It is estimated that more than 40,000 injuries result from office-related accidents.

Accidents not only are costly to the employee (i.e., pain and anguish), but also are costly to the employer. These injuries can cost thousands of dollars in hospital and medical benefits, decreased production, increased insurance costs, and the loss of office or managerial support. Therefore, potential office workers should become aware of safety hazards in the office and how to handle an injury if it should occur.

The main cause of office injury is due to tripping, slipping or falling. This accident is often the costliest and severest form of office injury. Even the simplest item, such as a rubber band or paper clip, can cause a person to trip.

Another source of concern for office injury is electricity. Not only can the cords become a tripping hazard, but they also can be the cause of electrical shock.

No matter what the type of injury, an office employee should know some basic first aid procedures. Remember that first aid is another name for immediate care for a sudden illness or injury. You will be dealing with the victim's emotional state, as well as the victim's physical condition.

If the situation is a life-threatening one, take care of it first and then seek help. For example, if a person falls and stops breathing, the most important step is to administer mouth-to-mouth breathing. After this task has been taken care of, call for help. You either call for an ambulance (if necessary) or have a fellow employee make the call for you.

Stay with the victim and keep checking to see if everything is all right. For example, a wound may start to bleed again. If a person is unconscious, you should check continually for a heartbeat or for breathing.

This unit will cover the basic first aid procedures for the following: cuts and abrasions, electrical shock, falls, heat exhaustion, burns, and mouth-to-mouth breathing.

First Aid Procedures

Cuts and Abrasions

1. Let the wound bleed a little for the bleeding helps clean the wound.
2. Cover the wound with a dressing (a 3" x 3" sterile dressing) and apply direct pressure.
3. Apply more dressings and raise the area of the cut if the bleeding continues.
4. Use a pressure point (TM#1) if bleeding still continues to slow the bleeding until an ambulance arrives.
5. Refer the victim to a doctor if the cut is of a serious nature or one that involves rusty objects or fragments.

Electrical Shock

1. Turn off the source of the power before touching the victim.
2. Remove the victim to a safer area.
3. Treat the victim for shock by following these procedures.
   a. Leave the person lying down and warm. (TM#2a and b)
   b. If the person is conscious, encourage the victim to drink fluids in small amounts, preferably a saline solution (contains some salt). Do not give the victim anything too hot or too cold.
4. Administer mouth-to-mouth breathing if the victim is not breathing.

Falls

1. Find out if the person is conscious. Tap the person on the shoulder and shout, "Are you okay?" Continue to check for consciousness, if necessary.
2. Do not move the victim until the victim can be checked out thoroughly as a fall can be potentially serious.
3. Insist that the victim rest for a few minutes even if the fall does not appear to be a serious one.

4. Keep all onlookers and others away from the victim as they can cause distress for the victim.

5. Loosen clothing at the neck and waist.

6. Cover the victim with a light covering until help arrives.

Heat Exhaustion

1. Heat exhaustion may develop if a person has been exposed to high temperatures and high humidity.

2. Look for the following symptoms of heat exhaustion: tiredness, weakness, dizziness, nausea, muscle cramps, fainting, and possibly even headaches.

3. Remove the victim to a cooler area.

4. Have the victim lie down, if possible, and elevate the victim's feet eight to twelve inches.

5. Have the victim sip clear juice or cool salt water (one teaspoon per glass) every fifteen minutes for one hour if no vomiting is present. If vomiting begins, stop the liquids.

6. Place a cool cloth on the victim's forehead and body.

7. Seek medical help if the symptoms should continue or get worse.

Heat Burns

In treating a heat burn, the three main objectives are (1) to relieve the pain, (2) to reduce the chance of contamination, and (3) to reduce the possibility of shock.

Burns are classified into two areas: thin burns and deep burns. These two types of burns should be treated differently.

Small, Thin Burns

These burns are surface burns where there are few or no blisters and little swelling.

1. Use cool water directly on this type of burn if it is not open or very deep. Immerse the burn area if possible. Continue to cool the burn until pain has been reduced.

2. Pat the burn area dry with sterile gauze.

3. Use a dry, sterile dressing if it is necessary to cover the burn. Use tape or a bandage to hold the dressing in place.

Large, Thin Burns

1. Use cool water for a large, thin burn until the pain is reduced.

2. Cover the burn area with a thick, sterile dressing after it has been dried.

Deep Burns

These burns are deeper and have open areas where blisters have broken or skin has burned away.

1. **Do not** use water on a deep burn. Water will increase the chance of infection.

2. Cover the burn with a thick, dry, sterile dressing and bandage. If the clothing of the victim is burned and is still sticking to the burn, **do not** try to remove it. Place the dressing right over it.

3. Treat the victim for shock by having the victim lie down and elevate the burned area, if it does not cause pain or further injury.

4. **Do not** give the burn victim fruit juices or alcoholic beverages.

5. See that the victim receives prompt medical care.

Mouth-to-Mouth Breathing

1. The victim should be placed on a firm surface, such as the floor.

2. The mouth and airway should be cleared of any foreign materials.

3. Tip the victim's head back to open the airway, if there is no neck injury. To do this, place one hand under the victim's neck and lift upward. Take the heel of your other hand and place it on the victim's forehead. Push down gently as the victim's chin is elevated. (TM#3)

4. Sometimes the victim will begin breathing once you have cleared the airway and tipped the head. Check for breathing by holding your head slightly above the victim's nose and mouth. If there is breathing present, you will feel the air on your cheek. You may also notice the rise and fall of the chest.

5. If the victim is not breathing once the airway has been cleared, you must give four quick, full breaths.

6. To give a quick, full breath, you must do the following.

   a. Pinch the victim's nose to keep air from escaping.

   b. Cover the victim's mouth tightly with your mouth.

   c. Give four big breaths as fast as you can. Don't wait between breaths any longer than it takes you to take in enough air quickly to give the victim another full breath. Repeat until you have given the victim four breaths. (TM#4)

   d. Stop the procedure when the chest is expanded. Check for air leaving the victim's lungs by holding your ear over the victim's mouth. Notice if the victim's chest rises and falls.

   e. Repeat procedure until the victim is breathing on his/her own or until help arrives.

You are not expected to cure a person's injury and should not try to do so. What you can do is make the victim a little more comfortable and give emotional support just by being there.

To increase your knowledge and confidence in basic first aid, take a course. Courses are offered through the American Red Cross, technical schools, and rescue squads.

ASSIGNMENT SHEET

Basic First Aid Learning Cases

Read each of the cases given below and write the basic first aid steps you would follow in each situation.

1. On a hot summer day the air conditioning in your building suddenly breaks down. Two hours later Liz walks slowly into your office. She says that she is feeling very weak and dizzy. Suddenly, Liz faints.

2. The copier breaks down late one afternoon and the repair person is not coming until the morning. However, there is a special mailing going out that afternoon and some copies still need to be made. Randall feels that he can fix the machine for you. Although you caution him not to tinker with the machine, he opens the front panel and starts to fiddle with the insides. There is a loud "pop" and Randall yells and falls back unconscious. You notice that his chest is rising and falling.

3. You notice that your co-worker, Glenda, is not back from lunch and she is 15 minutes late. You then hear footsteps hurrying down the hall and then the sounds of someone falling heavily. When you rush into the hall, you notice Glenda lying on the floor, moaning and saying that her arm hurts. You suspect that she might have a broken arm.

ASSIGNMENT SHEET KEY

Basic First Aid Learning Cases

1. a. Get someone to help move Liz to a cooler area.
   b. Lay Liz down flat and elevate her feet.
   c. Use a cool cloth on her face, hands, etc., to help cool her down.
   d. Once she comes to from the faint, offer her some clear juices or cool salt water every 15 minutes for one hour.
   e. Keep a continuous check to make sure that she is recovering.

2. a. Turn off the source of the power before touching the victim.
   b. Have someone help remove the victim to a safer area.
   c. Treat the victim for shock by leaving him lying down and warm.
   d. Keep a continuous check on the victim until the ambulance arrives.

3. a. Have Glenda lie still on the floor.
   b. Do not let her move her arm.
   c. Stay with her and keep her calm until an ambulance arrives.

TEST NO. 1

Test Cases/Basic First Aid

In each case given, write the basic first aid steps you would follow for the accident situation.

1. Mary Woods, an accountant, trips and falls over an electrical cord. You notice that she hit the side of her head on a desk. Mary is conscious but there is a large lump on the side of her head.

2. During the coffee break, Hal is pouring himself a cup of coffee when Gregg comes rushing into the breakroom and runs into Hal. The hot coffee spills over Hal's left hand and up his arm almost to his elbow. (There is a sink in the breakroom.)

3. Lana is using the paper cutter when she is distracted from her task by Christy asking her a question. The blade arm falls and cuts her on her forearm.

4. Mr. David Marlens, an older salesman, walks into your office. He seems to be rather pale and is perspiring heavily. As he turns to go into your employer's office, he crumbles to the floor. When you go to check on him, you notice that he is not breathing.

TEST NO. 1 KEY

Test Cases/Basic First Aid

Keep in mind that each student's answer will differ slightly; however, all the proper steps must be included.

1. a. Tap Mary on the shoulder and ask, "Are you okay?"
   b. Have Mary lie down and rest.
   c. Keep a check on her condition for a while to make sure that she is okay.
   d. It is also permissible to wrap ice in a cloth to help the swelling go down.
2. a. Either run cool water in the sink and immerse Hal's hand and arm or hold his hand and arm under cool running water.
   b. Have Hal sit down once the pain has been reduced.
   c. Pat the burn area dry with sterile gauze.
   d. Cover the burn with a thick, sterile dressing.
3. a. Have Lana sit down so she can be treated.
   b. If the wound is bleeding just slightly, let it bleed some to cleanse the wound. Then cover the cut with a sterile dressing and apply direct pressure.
   c. Apply more dressings and raise the arm if the bleeding does not stop.
   d. Use a pressure point to slow the bleeding if the bleeding still does not stop.
   e. Recommend that Lana see a doctor immediately since the cut has the potentiality of being serious.
4. a. Make sure that Mr. Marlens is lying flat on his back.
   b. Loosen his tie if he is wearing one and unbutton his collar so it will not constrict the airway.
   c. Clear the mouth and airway of any foreign materials.
   d. Tip the victim's head back by placing one hand under the victim's neck and lift upward. Take the heel of your other hand and place it on Mr. Marlen's forehead. Push down gently as you elevate his chin.
   e. Check to see if he is breathing now.
   f. Give four quick breaths by doing the following if he is not breathing.
      (1) Pinch the victim's nose to keep air from escaping.
      (2) Cover the victim's mouth tightly with your mouth.
      (3) Give four big breaths as fast as you can.
      (4) Stop the procedure when the chest is expanded. Check for air leaving the victim's lungs by holding your ear over the victim's mouth. See if the victim's chest rises and falls.
      (5) Repeat procedure until Mr. Marlens is breathing on his own or until help arrives.

TEST NO. 2

Basic First Aid Kit

List ten supplies which should be stored in an office first aid kit. Suggest the quantity needed for each item.

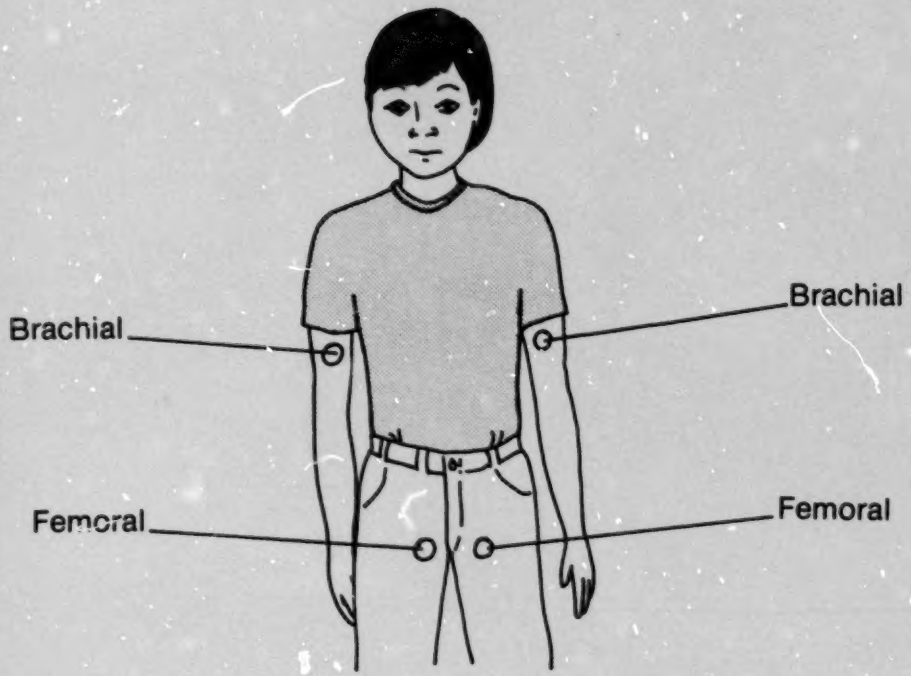
TEST NO. 2 KEY

Basic First Aid Kit

The following supplies should be stored in a container in a convenient location in the office.

1. 1 pair of scissors
2. 10 rolls of kling bandage
3. 40 sterile dressings, 3" x 3"
4. 1 cravat (used to immobilize broken bones)
5. 2 three-foot cloth ties (used with cravat to immobilize broken bones)
6. 2 ammonia capsules
7. 30 bandaids, 3/4" x 3"
8. 1 tube of antiseptic cream
9. 1 roll 2" adhesive tape
10. 1 bite stick (used for people having seizures)

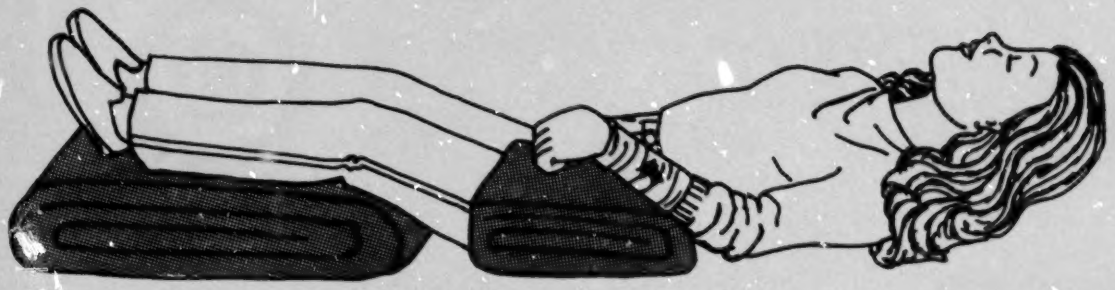
PRESSURE POINTS



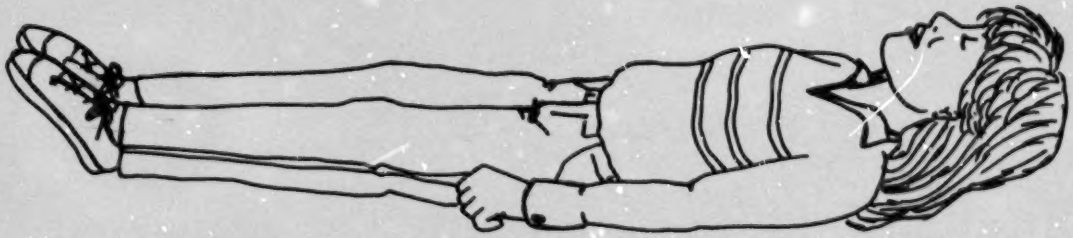
To stop bleeding, press firmly on either of these four points.

TM #1
Pressure Points
PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

SHOCK POSITIONS



This is the standard position for treating shock—injury and feet elevated. If there are any broken bones or if you suspect there are any broken bones, do not elevate the injury.

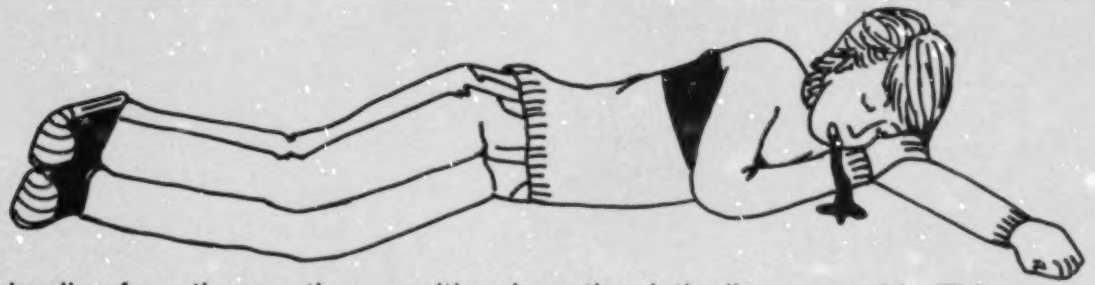


If you are unsure which position is correct or if you suspect there may be fractures, the victim should lie flat on the back. If elevation is painful, leave the victim flat.

TM #2a
Shock Positions
PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

SHOCK POSITIONS

If the victim is having trouble breathing or has a head wound, elevate the head and shoulders **only**.



If the victim is bleeding from the mouth or vomiting, have the victim lie on one side. This way, the fluid will drain from the mouth.

TM #2b
Shock Positions
PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

MOUTH-TO-MOUTH BREATHING

Not Tipped

Tipped

Opening the Airway Properly

TM #3
Opening the Airway
PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

THE QUICK STEP: 4 QUICK BREATHS

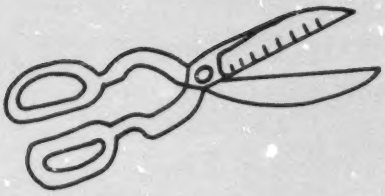
1. Preparing To Give a Breath

2. Giving a Breath

3. Repeat Step 1.

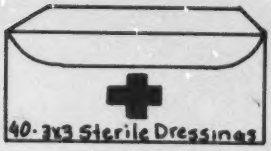
4. Repeat Step 2.

1.



2.

3.



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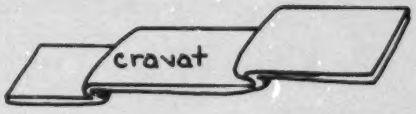

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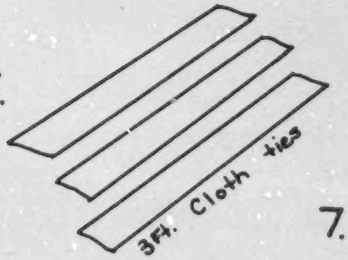
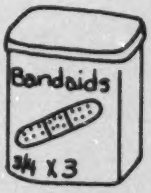


6.

7.



8.

9.

10.

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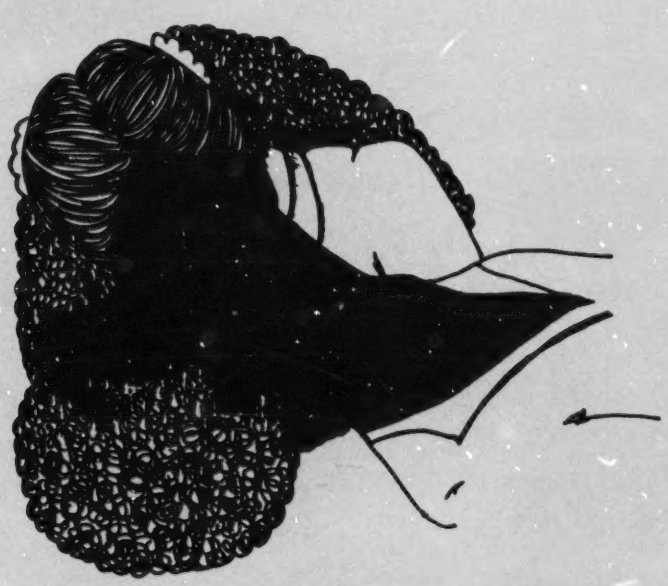
TM #5
First Aid Kit
PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

THE QUICK STEP: 4 QUICK BREATHS

1. Preparing To Give a Breath



2. Giving a Breath

3. Repeat Step 1.
4. Repeat Step 2.

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE, Part I: Basic First Aid—Bulletin board item

MOUTH-TO-MOUTH BREATHING

Not Tipped

Tipped

Opening the Airway Properly

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE
Part I: Basic First Aid--Bulletin board item

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

Part II: Reporting Injuries
Learning Activities #6-9

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

Workmen's Compensation

Companies need to keep accurate records of any accident that occurs. Some accidents are more serious than others, thus requiring medical attention. For an accident that does not require a physician's care, a simple accident form must be prepared. For an accident that requires a physician's care or that results in death, a form must be filed for workmen's compensation.

Workmen's compensation provides pay and medical help for a worker injured on the job. It also pays pensions to the worker's dependents when death results from a work-related accident. All 50 states have their own workmen's compensation laws, as does the federal government. All of the state's laws will differ widely in their provisions and administration.

The cost for workmen's compensation is handled by the employer. There are a few states, however, where the workers contribute small amounts.

Most of the state laws also provide for training in a new job for workers who cannot return to their old job as a result of their injuries.

The state workmen's compensation laws may be administered by a state agency, by insurance companies, or by a state agency and insurance companies together. The South Carolina Workmen's Compensation Law is administered by the South Carolina Industrial Commision.

The federal workmen's compensation laws are administered by the Office of Workmen's Compensation Programs in the Department of Labor.

Procedures for Reporting Injuries

1. The accident should be written up by the supervisor or manager on an accident report form. (Sample Form 1)

2. If the accident is serious enough to require a physician's attention, an Employer's First Report of Injury should be prepared. This form should be submitted in five days to the insurance company, who will submit the application to the South Carolina Industrial Commission. (Sample Form 2)

3. Determine if the accident is reportable on the Log and Summary of Occupational Injuries and Illnesses. (Read the following section on procedures for preparing the Log and Summary of Occupational Injuries and Illnesses.)

4. Collect all the physician's bills and medicine bills and send to the insurance company for payment.

5. If the employee is out of work longer than seven days, you must send in the Employer's Supplemental Report of Injury.

6. The injured employee is entitled to compensation at a weekly rate of 66 2/3% of the employee's average weekly wages. This weekly rate cannot be less than $25 nor more than 100% of the average weekly wage in South Carolina for the preceding fiscal year.

7. Before the employee can return to work, a physician's statement must be presented stating that the employee has recovered fully from the injury.

8. The Employer's Supplemental Report of Injury must also be prepared when the employee returns to work. (Sample Form 3)

9. If the accident results in the employee's death, dependents should make the claim. These claims must be made within one year.

10. If an employee does not agree with the decision made by the Industrial Commission, the decision can be appealed.

Procedures for Preparing the Log and Summary of Occupational Injuries and Illnesses

1. Determine if the accident is a recordable one.
   a. Occupational death
   b. Nonfatal occupational illness
   c. Nonfatal occupational injuries which involve the following:
      (1) Loss of consciousness
      (2) Restriction of work or motion
      (3) Transfer to another job
      (4) Medical treatment (other than first aid)

2. Fill in the general information needed at the top of the form: year, page, company name, establishment name (single physical location where services are performed), and establishment address. (Sample Form 4)

3. In Column A, a case or file number is entered. Each reported accident should be given a number so future reference to said accident will be easier to locate.

4. In Column B, enter the date of the injury.

5. In Column C, enter the employee's name.

6. In Column D, enter the job title of the person injured.

7. In Column E, enter the department in which the employee regularly works.

8. In Column F, enter a brief description of the injury or illness.

9. In the columns under injuries and illnesses carefully read the procedure to follow at the top of each column.

10. Totals must be entered for the year. The right portion of the form must be posted on the employee bulletin board from February 1 to March 1.

SAMPLE FORMS

Attached are four sample forms for use in Learning Activities 7-9.

Sample Form 1: Supervisor's Accident Investigation Report
Sample Form 2: Employer's First Report of Injury
Sample Form 3: Employer's Supplemental Report of Injury
Sample Form 4: Log and Summary of Occupational Injuries and Illnesses

The instructor will want to duplicate and distribute the blank forms when assigning student practice and conducting testing.

SAMPLE FORM 1

SUPERVISOR'S ACCIDENT INVESTIGATION REPORT

Injured Employee _____ Employee Number _____

Job Title _____

Accident Location _____

Injury Date _____ Time _____ AM-PM Date Reported _____ Last Day Worked _____

Name & Address of Doctor/Hospital _____

Did employee return to work? ☐ Yes ☐ No If yes, date returned _____

Describe injury or alleged injury _____

Description of accident _____

Witnesses _____

Did equipment malfunction? ☐ Yes ☐ No If yes, describe on reverse side.

Describe damage to equipment or property _____

What caused the accident? (See cause and effect factors on cover) _____

What action has been or will be taken to prevent recurrence? _____

(continue on reverse side

Supervisor and Dept. _____ Date _____

Form Furnished by Wausau Insurance Companies, Wausau, Wisconsin
(For Policyholder's Internal Use Only)

(R) 304 39 480

PRTD. USA

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REVIEW BY SUPERINTENDENT OR MANAGER

Recommendations or orders

Signed _____ Date _____

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SAMPLE FORM 2

39-CSF-9 R1
Form 12-A

SEND REPORT IN DUPLICATE TO
LIBERTY MUTUAL INSURANCE COMPANY AT ADDRESS SHOWN IN ITEM (40)
FILING OF THIS REPORT IS REQUIRED IN COMPLIANCE WITH RULE 8

SOUTH CAROLINA INDUSTRIAL COMMISSION

COLUMBIA, SOUTH CAROLINA
EMPLOYER'S FIRST REPORT OF INJURY
(EVERY QUESTION MUST BE ANSWERED)

I.C. File No. .....
Emp. Code No. .....
Carrier Code No. .....
Policy Year .....
Carrier File No. .....
This report cannot be processed unless it has been coded by the carrier.

(1) Name ..... Location No. ..... Report No. .....
(Give name under which concern does business)
(2) Office address: No. and Street ..... City ..... State .....
(3) Nature of business ..... Tel. No. .....
(List principal product or service of the concern)

(4) Accident occurred where? ..... (5) On employer's premises? .....
(City, County and State) (Yes or No)
(6) Date of accident: ..... 19 ..... Day of week: ..... Hour ..... A. M. ..... P. M.
(7) Date disability began: ..... (8) Was injured paid in full for this day? .....
(Yes or No)
(9) When did you or foreman first know of injury? ..... Name of foreman .....

(10) Name ..... (First Name) (Middle Initial) (Last Name) (S.S.
(11) Address: No. and street ..... City ..... State ..... Code .....
(12) Age: ..... (13) How long employed by you? ..... (13a) Department .....
(14) Check (✓): Single ..... Married ..... Divorced ..... Widowed ..... Male ..... Female .....
(15) Number of hours worked per day ..... (16) Number of days worked per week .....
(17) Wages: per hour ..... per day $ ..... per week $ ..... If board, lodging, fares or other advantages were furnished in addition to wages, give estimated value per week: $ ..... per month $

(18) What was employee doing when the accident occurred? .....
(Describe briefly, such as: loading truck;
operating a drill press; shoveling dirt; painting with spray gun, etc.)
(19) Occupation .....
(20) How long employed by you at this occupation? .....
(21) What machine, tool, substance or object was most closely connected with the accident? .....
(Name the machine, tool, appliance, gas, liquid, etc., involved)
(22) If machine or vehicle, what part of it? .....
(State if gears, pulley, motor, etc.)
(23) How did the accident happen .....
(Describe the accident fully, stating whether the injured fell
or was struck, etc., and all the factors contributing to the accident. Use other side of report for additional space)
(24) In what way was the machine, tool or object defective? .....
(25) How can you prevent this type of accident? .....
(Specify the remedial measure, such as: better illumination, better ventilation,
providing goggles, providing a better guard, better supervision, etc.)
(26) Were mechanical guards, or other necessary safeguards (such as goggles) provided? .....
(27) Was injured using them? .....
(28) How could the injured have prevented the accident? .....
(Do not say "by being more careful," but specify what employee should or should not
have done. For instance: should not have used defective ladder, should not have oiled machinery in motion; should have worn goggles, etc.)
(29) Names and addresses of witnesses .....

(30) .....
(Describe in detail the nature of the injury and the part of the body affected. For instance:
amputation of right arm, crushing injury to chest, lead poisoning, dermatitis or right arm and hand, etc.)
(31) Name and address of physician .....
(32) Name and address of hospital .....
(33) Probable length of disability .....
(34) Has employee returned to work? ..... (35) If so, give date ..... (36) At what weekly wage? $ .....
(37) Did injury result in death? ..... (38) If so, give date .....
(39) In case of death, give name and address of nearest relative .....

(40) Name and address of workmen's compensation insurance carrier ..... LIBERTY MUTUAL INSURANCE COMPANY
1777 So. Julian Place, P.O. Box 1015, Columbia, South Carolina 29240
(41) Date of this report ..... Made out by .....
Official position .....

THIS REPORT MUST BE TRANSMITTED TO THE COMMISSION THROUGH YOUR INSURANCE CARRIER

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Form No. S. F. S. — ASC-2480

SAMPLE FORM 3

STANDARD FORM FOR

EMPLOYER'S SUPPLEMENTAL REPORT OF INJURY

Approved by I. A. I. A. B. C.

Please Send Report in Duplicate to

LIBERTY MUTUAL INSURANCE COMPANY
Suite 100, 1777 St. Julian Place
P.O. Box 4845
Columbia, South Carolina 29240

State's Number For:	File: Carrier: Employer:

Carrier's File No.

(The spaces above not to be filled in by Employer)

If Employer's First Report of Injury did not show that the injured had returned to work, an Employer's Supplemental Report of Injury should be completed and filed immediately after return to work of the employee; or at the end of 60 days. In the event of the death of the employee, this report should be filed immediately.

1. Name of Employer .....

2. Office address: No. and St. .....City or Town.....State.....

3. INSURED BY LIBERTY MUTUAL INSURANCE COMPANY

4. Name of Injured (in full).....
(First Name) (Middle Initial) (Last Name)

5. Present address: No. and St.....City or Town.....State.....

6. Date of Injury.....19.....Day of week.....Hour of day.....A.M.....P.M.

7. Date Disability began.....19.....A.M.....P.M.....

8. Has injured returned to work?.....If so, date and hour.....A.M.....P.M.

9. Is injured person earning same wages as before injury?.....If not, explain.....

10. If disability has not terminated, state probable date of termination of disability.....

11. Has injured died?.....If so, date of death.....A.M.....P.M.

Date of this report.....Firm Name .....

Signed by .....Official Title.....

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SAMPLE FORM 4

Bureau of Labor Statistics
Log and Summary of Occupational Injuries and Illnesses

U.S. Department of Labor

NOTE: This form is required by Public Law 91-596 and must be kept in the establishment for 5 years. Failure to maintain and post this report as the law requires is punishable by a fine of $1,000. (See posting requirements on the other side of form.)

RECORDABLE CASES: You are required to record information about every occupational death, every nonfatal occupational illness, and those nonfatal occupational injuries which involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid). (See definitions on the other side of form.)

Company Name

Establishment Name

Establishment Address

For Calendar Year 19__

Page ___ of ___

Form Approved
O M B No. 44R-1453

Enter a case number assigned by you to this injury or illness

Date of Injury or Onset of Illness

Enter mo./day

Employee's Name

Enter first name or initial, middle initial, last name

Occupation

Enter regular job title, not activity employee was performing when injured or at onset of illness. In the absence of a normal job, enter a brief description of the employee's duties.

Department

Enter department in which the employee is regularly employed or a description of normal workplace to which employee is assigned, even though temporarily working in another department at the time of injury or illness.

Description of Injury or Illness

Enter a brief description of the injury or illness and indicate the part or parts of body affected.

Typical entries for this column might be: Amputation of 1st joint right forefinger, Strain of lower back, Contact dermatitis on both hands, Electrocution—dead

PREVIOUS PAGE TOTALS →

TOTALS (Separate totals on other side of form.) →

Extent of and Outcome of INJURY

Fatalities

Enter DAYS of Death

Mo./day/yr.

Nonfatal Injuries

Injuries With Lost Workdays

Enter a CHECK if injury involves days away from work, or days of restricted work activity, or both

Enter a CHECK if injury involves days away from work.

Enter number of DAYS away from work.

Enter number of DAYS of restricted work activity.

Injuries Without Lost Workdays

Enter a CHECK if no entry was made in (6) or (7) unless 1 or 2 (but not more) injuries are recordable as defined above

Type, Extent of, and Outcome of ILLNESS

Type of Illness

CHECK Only One Column for Each Illness (See other side of form for definitions or permissible exceptions.)

(7)

Occupational skin diseases or disorders

Dust diseases of the lungs

Respiratory conditions due to toxic agents

Poisoning (systemic effect of toxic materials)

Disorders due to physical agents

Disorders associated with repeated trauma

All other occupational illnesses

Fatalities

Illness Related

Enter DATE of death

Mo./day/yr.

Nonfatal Illnesses

Illnesses With Lost Workdays

Enter a CHECK if illness involves days away from work, or days of restricted work activity, or both

Enter a CHECK if illness involves days away from work.

Enter number of DAYS away from work.

Enter number of DAYS of restricted work activity.

Illnesses Without Lost Workdays

Enter a CHECK if no entry was made in (10) or (11) unless (9) was recorded

(1a) (1b) (1c) (1d) (2) (3) (4) (5) (6) (7a) (7b) (7c) (7d) (7e) (7f) (7g) (8) (9) (10) (11) (12) (13)

INJURIES

ILLNESSES

Certification of Annual Summary Totals By _____ Title _____ Date _____

OSHA No. 200

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Log and Summary of Occupational Injuries and Illnesses

Each employer who is subject to the recordkeeping requirements of the Occupational Safety and Health Act of 1970 must maintain for each establishment a log of all recordable occupational injuries and illnesses. This form (OSHA No. 200) may be used for that purpose. A substitute for the OSHA No. 200 is acceptable if it is as detailed, easily readable, and understandable as the OSHA No. 200.

Enter each recordable case on the log within six (6) workdays after learning of its occurrence. Although other records must be maintained at the establishment to which they refer, it is possible to prepare and maintain the log at another location, using data processing equipment if desired. If the log is prepared elsewhere, a copy updated to within 45 calendar days must be present at all times in the establishment.

Logs must be maintained and retained for five (5) years following the end of the calendar year to which they relate. Logs must be available (normally at the establishment) for inspection and copying by representatives of the Department of Labor, or the Department of Health, Education and Welfare, or States accorded jurisdiction under the Act.

Changes in Extent of or Outcome of Injury or Illness

If, during the 5-year period the log must be retained, there is a change in an extent and outcome of an injury or illness which affects entries in columns 1, 2, 8, 8, 9, or 13, the first entry should be lined out and a new entry made. For example, if an injured employee at first required only medical treatment but later lost workdays away from work, the check in column 6 should be lined out, and checks entered in columns 2 and 3 and the number of lost workdays entered in column 4.

In another example, if an employee with an occupational illness lost workdays, returned to work, and then died of the illness, the entries in columns 9 and 10 should be lined out and the date of death entered in column 8.

The entire entry for an injury or illness should be lined out if later found to be nonrecordable. For example, an injury or illness which is later determined not to be work related, or which was initially thought to involve medical treatment but later was determined to have involved only first aid.

I. Posting Requirements

A copy of the totals and information following the fold line of the last page for the year must be posted at each establishment in the place or places where notices to employees are customarily posted. This copy must be posted no later than *February 1 and must remain in place until March 1.*

Even though there were no injuries or illnesses during the year, zeros must be entered on the totals line, and the form posted.

The person responsible for the annual summary totals shall certify that the totals are true and complete by signing at the bottom of the form.

II. Instructions for Completing Log and Summary of Occupational Injuries and Illnesses

Column A – CASE OR FILE NUMBER. Self-explanatory.

Column B – DATE OF INJURY OR ONSET OF ILLNESS.
For occupational injuries, enter the date of the work accident which resulted in injury. For occupational illnesses, enter the date of initial diagnosis of illness, or, if absence from work occurred before diagnosis, enter the first day of the absence attributable to the illness which was later diagnosed or recognized.

Columns C through F – Self-explanatory.

Columns 1 and 8 – INJURY OR ILLNESS-RELATED DEATHS.
Self-explanatory.

Columns 2 and 9 – INJURIES OR ILLNESSES WITH LOST WORKDAYS.
Self-explanatory.

Any injury which involves days away from work, or days of restricted work activity, or both must be recorded since it always involves one or more of the criteria for recordability.

Columns 3 and 10 – INJURIES OR ILLNESSES INVOLVING DAYS AWAY FROM WORK. Self-explanatory.

Columns 4 and 11 – LOST WORKDAYS—DAYS AWAY FROM WORK.
Enter the number of workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness. The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.
NOTE: For employees not having a regularly scheduled shift, such as certain truck drivers, construction workers, farm labor, casual labor, part-time employees, etc., it may be necessary to estimate the number of lost workdays. Estimates of lost workdays shall be based on prior work history of the employee AND days worked by employees, not ill or injured, working in the department and/or occupation of the ill or injured employee.

Columns 5 and 12 – LOST WORKDAYS—DAYS OF RESTRICTED WORK ACTIVITY.
Enter the number of workdays (consecutive or not) on which because of injury or illness

(1) the employee was assigned to another job on a temporary basis, or
(2) the employee worked at a permanent job less than full time, or
(3) the employee worked at a permanently assigned job but could not perform all duties normally connected with it.

The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

Columns 6 and 13 – INJURIES OR ILLNESSES WITHOUT LOST WORKDAYS. Self-explanatory.

Columns 7a through 7g – TYPE OF ILLNESS.
Enter a check in only one column for each illness.

TERMINATION OR PERMANENT TRANSFER—Place an asterisk to the right of the entry in columns 7a through 7g (type of illness) which represented a termination of employment or permanent transfer.

V. Totals

Add number of entries in columns 1 and 8.
Add number of checks in columns 2, 3, 6, 7, 9, 10, and 13.
Add number of days in columns 4, 5, 11, and 12.
Totals are to be generated for each column at the end of each page and at the end of each year. Only the yearly totals are required for posting.

If an employee's loss of workdays is continuing at the time the totals are summarized, estimate the number of future workdays the employee will lose and add that estimate to the workdays already lost and include this figure in the annual total. No further entries are to be made with respect to such cases in the next year's log.

VI. Definitions

OCCUPATIONAL INJURY is any injury such as a cut, fracture, sprain, amputation, etc., which results from a work accident or from an exposure involving a single incident in the work environment.
NOTE: Conditions resulting from animal bites, such as insect or snake bites or from one-time exposure to chemicals, are considered to be injuries.

OCCUPATIONAL ILLNESS of an employee is any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion, or direct contact.

The following listing gives the categories of occupational illnesses and disorders that will be utilized for the purpose of classifying recordable illnesses. For purposes of information, examples of each category are given. These are typical examples, however, and are not to be considered the complete listing of the types of illnesses and disorders that are to be counted under each category.

7a. Occupational Skin Diseases or Disorders
Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; chrome ulcers; chemical burns or inflammations; etc.

7b. Dust Diseases of the Lungs (Pneumoconioses)
Examples: Silicosis, asbestosis, coal worker's pneumoconiosis, byssinosis, siderosis, and other pneumoconioses.

7c. Respiratory Conditions Due to Toxic Agents
Examples: Pneumonitis, pharyngitis, rhinitis or acute congestion due to chemicals, dusts, gases, or fumes; farmer's lung; etc.

7d. Poisoning (Systemic Effect of Toxic Materials)
Examples: Poisoning by lead, mercury, cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays such as parathion, lead arsenate; poisoning by other chemicals such as formaldehyde, plastics, and resins; etc.

7e. Disorders Due to Physical Agents (Other than Toxic Materials)
Examples: Heatstroke, sunstroke, heat exhaustion, and other effects of environmental heat; freezing, frostbite, and effects of exposure to low temperatures; caisson disease; effects of ionizing radiation (isotopes, X-rays, radium); effects of nonionizing radiation (welding flash, ultraviolet rays, microwaves, sunburn); etc.

7f. Disorders Associated With Repeated Trauma
Examples: Noise-induced hearing loss; synovitis, tenosynovitis, and bursitis; Raynaud's phenomena; and other conditions due to repeated motion, vibration, or pressure.

7g. All Other Occupational Illnesses
Examples: Anthrax, brucellosis, infectious hepatitis, malignant and benign tumors, food poisoning, histoplasmosis, coccidioidomycosis, etc.

MEDICAL TREATMENT includes treatment (other than first aid) administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does NOT include first-aid treatment (one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care) even though provided by a physician or registered professional personnel.

ESTABLISHMENT: A single physical location where business is conducted or where services or industrial operations are performed (for example: a factory, mill, store, hotel, restaurant, movie theater, farm, ranch, bank, sales office, warehouse, or central administrative office). Where distinctly separate activities are performed at a single physical location (such as construction activities operated from the same physical location as a lumber yard), each activity shall be treated as a separate establishment.

For firms engaged in activities which may be physically dispersed, such as agriculture; construction; transportation; communications; and electric, gas, and sanitary services; records may be maintained at a place to which employees report each day.

Records for personnel who do not primarily report or work at a single establishment, such as traveling salesmen, technicians, engineers, etc., shall be maintained at the location from which they are paid or the base from which personnel operate to carry out their activities.

WORK ENVIRONMENT is comprised of the physical location, equipment, materials processed or used, and the kinds of operations performed in the course of an employee's work, whether on or off the employer's premises.

ASSIGNMENT SHEET

Completion of Forms

A completed Supervisor's Accident Investigation Report re: employee Jennifer Ann Clark is provided you. Also, an additional sheet of detailed information on the case is included.

Given a blank Employer's First Report of Injury form and a blank Employer's Supplemental Report of Injury form, practice completing the two forms based on the information provided you. Finally, enter the information on the blank Log and Summary of Occupational Injuries and Illnesses which is attached.

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

ASSIGNMENT SHEET

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SUPERVISOR'S ACCIDENT INVESTIGATION REPORT

Injured Employee: Jennifer Ann Clark Employee Number: 22

Job Title: Secretary

Accident Location: Accounting Dept.

Injury Date: 9/27-- Time: 10 AM-PM Date Reported: 9/28/-- Last Day Worked: 9/27/--

Name & Address of Doctor/Hospital: Dr. Charles Tucker Gray Memorial Hospital Page, SC

Did employee return to work? ☒ Yes ☐ No If yes, date returned: 10/12/--

Describe injury or alleged injury: neck and back injuries resulting in a displaced vertebra

Description of accident: the employee was turning around in her chair when one of the wheels locked. The chair fell backwards with Ms Clark hitting her head on the floor.

Witnesses: Joe Roberts - Rt 2 Box 89
Linda Miller - 409 Union Ave.

Did equipment malfunction? ☒ Yes ☐ No If yes, describe on reverse side.

Describe damage to equipment or property: the back rest of the chair was broken - the knob was broken in two pieces

What caused the accident? (See cause and offset factors on cover): apparently the chair had a faulty wheel that locked causing the chair to become unbalanced.

What action has been or will be taken to prevent recurrence? All secretarial chairs will be checked for faulty wheels. (continue on reverse side)

Supervisor and Dept.: Linda Milley Acct Dept Date: 9/28/--

Form Furnished by Wausau Insurance Companies, Wausau, Wisconsin
(For Policyholder's Internal Use Only)

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REVIEW BY SUPERINTENDENT OR MANAGER

Recommendations or orders: Send this in on Workmens Compensation

Signed: Jonathan Lacey Date: 9/29/--

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ASSIGNMENT SHEET

Workmen's Compensation Case

In addition to the information contained in the Supervisor's Accident Investigation Report, the following facts are given in order to prepare the Employer's First Report of Injury. The information is listed by question number. Use this information in conjunction with the filled out accident report. If a question number is not listed, check the accident report for the information.

1. Page Yarns, Inc. -- 242 (Location No.) -- 102 (Report No.)
2. 341 S. Pearl Street, Page, SC
3. Textiles -- 672-65839
4. Page -- Chesterfield -- SC
5. Yes
6. Tuesday (Day of the week)
7. 9/27/--
8. Yes
9. 9/27/--
10. 342-21-0896
11. Apt. 4A, 20 Pine Avenue, Page, SC 23081
12. 24
13. 4 years
14. Single -- female
15. 8
16. 5
17. Per week $200
20. 4 years
26. NA (abbreviation for not applicable)
27. NA
28. As the chair was defective, the employee could not have done anything to prevent the accident.
31. 200 Main Street (see accident report)
32. 502 E. River Avenue (see accident report)
33. 2 weeks
34. No
35. NA
36. NA
37. No
38. NA
39. NA
41. September 29, 19--
    Personnel Clerk

Additional information needed to prepare the Employer's Supplemental Report of Injury is given below. Obtain all necessary information from the completed Employer's First Report of Injury.

7. 9/27--
8. Yes -- 8:30 a.m. -- 10/13/--
9. Yes
10. NA
11. No
    Date of report: 10/14/--

Don't forget to enter this accident on the Log and Summary of Occupational Injuries and Illnesses!

PROCEDURES FOR REPORTING AND HANDLING
INJURIES IN THE OFFICE

KEY TO ASSIGNMENT SHEET
Sample Form 2

39-CSF-9 R1
Form 12-A

SEND REPORT IN DUPLICATE TO
LIBERTY MUTUAL INSURANCE COMPANY AT ADDRESS SHOWN IN ITEM (40)
FILING OF THIS REPORT IS REQUIRED IN COMPLIANCE WITH RULE 8

SOUTH CAROLINA INDUSTRIAL COMMISSION

COLUMBIA, SOUTH CAROLINA
EMPLOYER'S FIRST REPORT OF INJURY
(EVERY QUESTION MUST BE ANSWERED)

I.C. File No. .....
Emp. Code No. .....
Carrier Code No. .....
Policy Year .....
Carrier File No. .....
This report cannot be processed unless it has been coded by the carrier.

(1) Name Page Yarns, Inc. Location No. 242 Report No. 102
(Give name under which concern does business)
(2) Office address: No. and Street 341 S. Pearl Street City Page State SC
(3) Nature of business textiles Tel. No. 672-65839
(List principal product or service of the concern)

(4) Accident occurred where? Page Chesterfield SC (5) On employer's premises? yes
(City, County and State) (Yes or No)
(6) Date of accident: September 27 19-- Day of week: Tuesday Hour: 10:00 A.M. P.M.
(7) Date disability began: September 27, 19-- (8) Was injured paid in full for this day? yes
(Yes or No)
(9) When did you or foreman first know of injury? September 27, 19-- Name of foreman Linda Miller

(10) Name Jennifer (First Name) A. (Middle Initial) Clark (Last Name) 342-21-0896 (S.S.)
(11) Address: No. and street Apt. 4A, 20 Pine Avenue City Page State SC Code 23081
(12) Age 24 (13) How long employed by you? 4 years (13a) Department Accounting
(14) Check (✓): Single X Married Divorced Widowed Male Female X
(15) Number of hours worked per day 8 (16) Number of days worked per week 5
(17) Wages: per hour per day $ per week $ 200.00 If board, lodging, fares or other advantages were furnished in addition to wages, give estimated value per week: $ per month $

(18) What was employee doing when the accident occurred? The employee was turning around in her chair at her desk.
(Describe briefly, such as: loading truck; operating a drill press; shoveling dirt; painting with spray gun; etc.)
(19) Occupation Secretary
(20) How long employed by you at this occupation? 4 years
(21) What machine, tool, substance or object was most closely connected with the accident? secretarial chair
(Name the machine, tool, appliance, gas, liquid, etc., involved)
(22) If machine or vehicle, what part of it? NA
(State if gears, pulley, motor, etc.)
(23) How did the accident happen The employee was turning around in her chair at her desk when one of the wheels locked. The chair fell backwards with Ms. Clark
(Describe the accident fully, stating whether the injured fell or was struck, etc., and all the factors contributing to the accident. Use other side of report for additional space)
(24) In what way was the machine, tool or object defective? the wheels did not function properly
(25) How can you prevent this type of accident? All secretarial chairs will be checked for faulty wheels.
(Specify the remedial measure, such as: better illumination, better ventilation, providing goggles, providing a better guard, better supervision, etc.)
(26) Were mechanical guards, or other necessary safeguards (such as goggles) provided? NA
(27) Was injured using them? NA
(28) How could the injured have prevented the accident? As the chair was defective, the employee could not have done anything to prevent the accident.
(Do not say "by being more careful," but specify what employee should or should not have done. For instance: should not have used defective ladder, should not have oiled machinery in motion, should have worn goggles, etc.)
(29) Names and addresses of witnesses Joe Roberts - Rt. 2, Box 89; Linda Miller - 409 Union Ave.

(30) Ms. Clark suffered neck and back injuries resulting in a displaced vertebra.
(Describe in detail the nature of the injury and the part of the body affected. For instance: amputation of right arm, crushing injury to chest, lead poisoning, dermatitis or right arm and hand, etc.)
(31) Name and address of physician Dr. Charles Tucker - 200 Main Street, Page, SC 23081
(32) Name and address of hospital Gray Memorial Hospital, 502 E. River Ave., Page, SC 23081
(33) Probable length of disability 2 weeks
(34) Has employee returned to work? no (35) If so, give date NA (36) At what weekly wage? $ NA
(37) Did injury result in death? no (38) If so, give date NA
(39) In case of death, give name and address of nearest relative NA

(40) Name and address of workmen's compensation insurance carrier LIBERTY MUTUAL INSURANCE COMPANY
1777 St. Julian Place, P.O. Box 1645, Columbia, South Carolina 29240
(41) Date of this report September 29, 19-- Made out by
Official position Personnel Clerk

THIS REPORT MUST BE TRANSMITTED TO THE COMMISSION THROUGH YOUR INSURANCE CARRIER

BEST COPY AVAILABLE

23. hitting her head on the floor.

KEY TO ASSIGNMENT SHEET

Sample Form 3

Form R. S. F. L. — ARC-2440

STANDARD FORM FOR

EMPLOYER'S SUPPLEMENTAL REPORT OF INJURY

Approved by I. A. I. A. B. C.

Please Send Report in Duplicate to

LIBERTY MUTUAL INSURANCE COMPANY
Suite 100, 1777 St. Julian Place
P.O. Box 4845
Columbia, South Carolina 29240

State's Number For:	File: Carrier: Employer:
Carrier's File No.	

(The spaces above not to be filled in by Employer)

If Employer's First Report of Injury did not show that the injured had returned to work, an Employer's Supplemental Report of Injury should be completed and filed immediately after return to work of the employee; or at the end of 60 days. In the event of the death of the employee, this report should be filed immediately.

1. Name of Employer Page Yarns, Inc.

2. Office address: No. and St. 341 S. Pearl St. City or Town Page State SC

3. INSURED BY LIBERTY MUTUAL INSURANCE COMPANY

4. Name of Injured (in full) Jennifer (First Name) A. (Middle Initial) Clark (Last Name)

5. Present address: No. and St. Apt. 4A 20 Pine Ave. City or Town Page State SC

6. Date of Injury September 27 19 -- Day of week Tuesday Hour of day 10:00 A.M. P.M.

7. Date Disability began September 27, 19 -- A.M. 10:00 P.M.

8. Has injured returned to work? yes If so, date and hour October 13, 1983 8:30 A.M. P.M.

9. Is injured person earning same wages as before injury? yes If not, explain

10. If disability has not terminated, state probable date of termination of disability NA

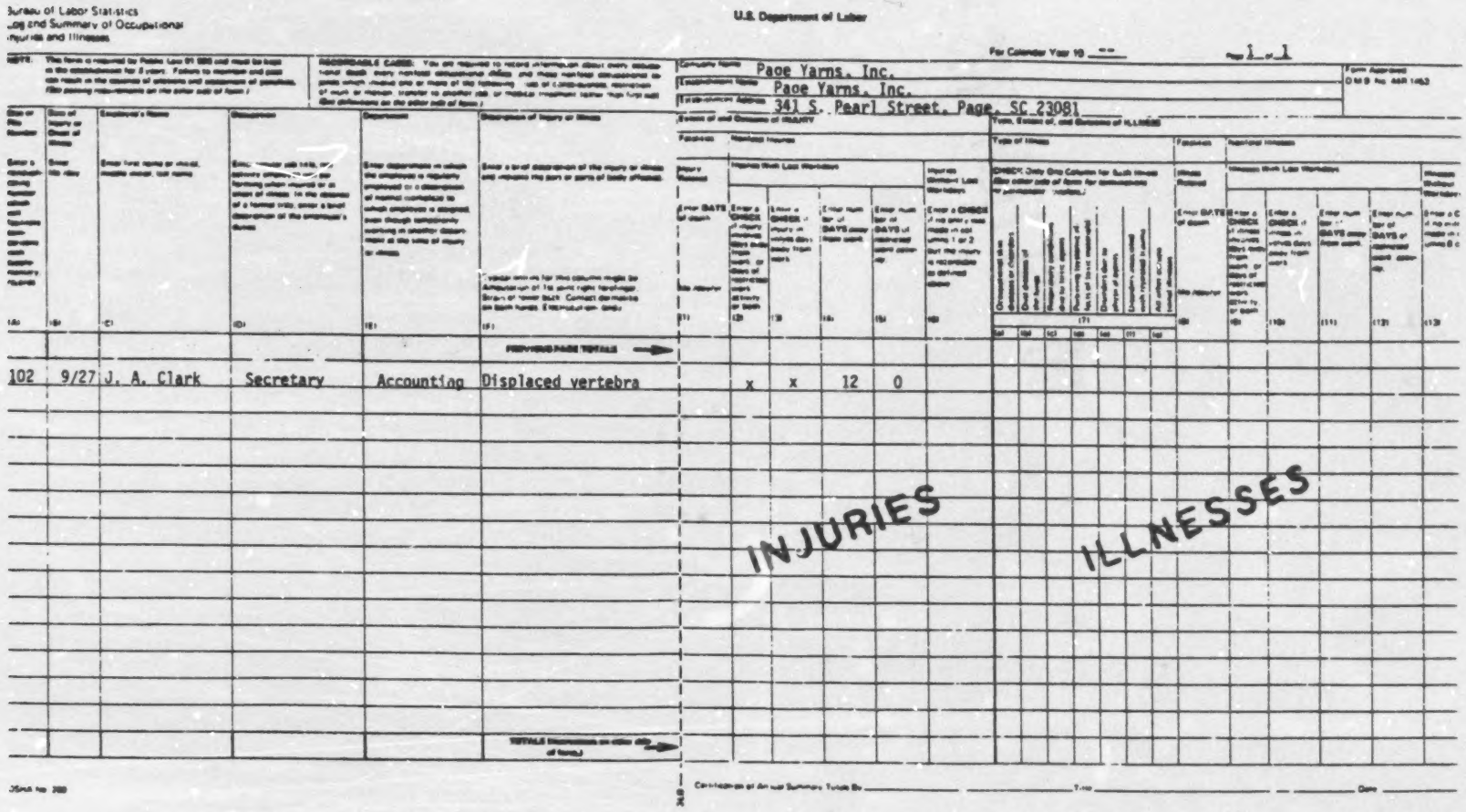
11. Has injured died? no If so, date of death A.M. P.M.

Date of this report October 14, 19-- Firm Name Page Yarns, Inc.

PROCEDURES FOR REPORTING AND HANDLING
INJURIES IN THE OFFICE

KEY TO ASSIGNMENT SHEET

Sample Form 4



Bureau of Labor Statistics
Log and Summary of Occupational Injuries and Illnesses

U.S. Department of Labor

For Calendar Year 19 -- Page 1 of 1

Company Name: Page Yarns, Inc.
Establishment Name: Page Yarns, Inc.
Establishment Address: 341 S. Pearl Street, Page, SC 23081

Case or File Number	Date of Injury or Onset of Illness	Employee's Name	Occupation	Department	Description of Injury or Illness	Injuries Without Lost Workdays	Injuries With Lost Workdays			Illnesses Without Lost Workdays	Illnesses With Lost Workdays			
						Enter DATE of return	Enter a CHECK if injury involved days away from work, or days of restricted work activity, or both	Enter number of DAYS away from work	Enter number of DAYS of restricted work activity	Enter a CHECK if no entry was made in col. 1 or 2 but this injury is recordable as defined above	Enter DATE of return	Enter a CHECK if illness involved days away from work, or days of restricted work activity, or both	Enter number of DAYS away from work	Enter number of DAYS of restricted work activity
(1a)	(1b)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
					PREVIOUS PAGE TOTALS →									
102	9/27	J. A. Clark	Secretary	Accounting	Displaced vertebra		x	12	0					
					TOTALS (Enter totals on other side of form) →									

INJURIES

ILLNESSES

Certification of Annual Summary Totals By _____ Title _____ Date _____

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TEST NO. 3

Completion of Forms

1. You will be provided three blank forms:
   Employer's First Report of Injury
   Employer's Supplemental Report of Injury
   Log and Summary of Occupational Injuries and Illnesses

2. Complete each form based on the information which is given you regarding employee Rodney Eugene Sanders. The information is presented on a Supervisor's Accident Investigation Report form accompanied by a listing of pertinent facts.

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

TEST NO. 3

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SUPERVISOR'S ACCIDENT INVESTIGATION REPORT

Injured Employee Rodney Eugene Sanders Employee Number 41

Job Title Stockroom manager

Accident Location Stockroom office area

Injury Date 11/5/-- Time 3:00 AM PM Date Reported 11/6/-- Last Day Worked 11/5/--

Name & Address of Doctor/Hospital Dr. Charles Tucker Union Memorial Hospital Page, SC

Did employee return to work? ☒ Yes ☐ No If yes, date returned 12/4/--

Describe injury or alleged injury broken upper left arm and dislocated shoulder

Description of accident Rodney tripped over a frayed piece of carpet and fell against the edge of a desk.

Witnesses Carrie Richards — 600 Maple Avenue

Did equipment malfunction? ☐ Yes ☒ No If yes, describe on reverse side.

Describe damage to equipment or property None

What caused the accident? (See cause and effect factors on ...) Rodney's foot became entangled in a frayed piece of carpet.

What action has been or will be taken to prevent recurrence? the frayed carpet will be replaced within (continue on reverse side)

Supervisor and Dept. Carrie Richards, Stockroom Date 11/6/--

Form Furnished by Wausau Insurance Companies, Wausau, Wisconsin
(For Policyholder's Internal Use Only)

VIII-67

1 week. All carpet will be checked and other frayed areas will be recovered at the same time.

REVIEW BY SUPERINTENDENT OR MANAGER

Recommendations or orders

Send this in on Workmen's Compensation.

Do a follow-up on that carpet — make sure that everything is in order.

Signed Jonathan Lacey Date 11/8/--

TEST NO. 3

Workmen's Compensation Test Case

In addition to the information contained in the Supervisor's Accident Investigation Report, the following facts are given in order to prepare the Employer's First Report of Injury. The information is listed by question number. Use this information in conjunction with the filled out accident report. If a question number is not listed, check the accident report for the information.

Note: If the teacher desires, this case can be changed by deleting the question numbers and just giving the students the information. The students must then decide where the information is to be used.

1. Page Yarns, Inc. -- 242 (Location No.) -- 103 (Report No.)
2. 341 S. Pearl St., Page, SC
3. Textiles -- 672-65839
4. Page -- Chesterfield -- SC
5. Yes
6. Thursday
7. 11/6/--
8. No
9. 11/5/-- -- NA
10. 263-05-9944
11. P. O. Box 21, Page, SC 23081
12. 29
13. 7 years
14. Married -- male
15. 8
16. 5
17. Per week $275
20. 4 years
26. NA
27. NA
28. The frayed carpet should have been reported as soon as it was discovered.
31. 200 Main Street (see accident report)
32. 502 E. River Avenue (see accident report)
33. 6 to 8 weeks
34. No
35. NA
36. NA
37. No
38. NA
39. NA
41. 11/6/--
    Personnel Clerk

Additional information needed to prepare the Employer's Supplemental Report of Injury is given below. Obtain all necessary information from the completed Employer's First Report of Injury.

7. 11/6/-- 8:30 a.m.
8. Yes -- 8:30 a/m. -- 12/4/--
9. Yes
10. NA
11. No
    Date of report: 12/4/--

Prepare the Log and Summary of Occupational Injuries and Illnesses.

PPROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

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KEY TO TEST NO. 3

39-CSF-9 R1
Form 12-A

SEND REPORT IN DUPLICATE TO
LIBERTY MUTUAL INSURANCE COMPANY AT ADDRESS SHOWN IN ITEM (40)
FILING OF THIS REPORT IS REQUIRED IN COMPLIANCE WITH RULE 8

SOUTH CAROLINA INDUSTRIAL COMMISSION

COLUMBIA, SOUTH CAROLINA
EMPLOYER'S FIRST REPORT OF INJURY
(EVERY QUESTION MUST BE ANSWERED)

I.C. File No. .....
Emp. Code No. .....
Carrier Code No. .....
Policy Year .....
Carrier File No. .....
This report cannot be processed unless it has been coded by the carrier

(1) Name Page Yarns, Inc. Location No 242 Report No 103
(Give name under which concern does business)
(2) Office address: No. and Street 341 S. Pearl Street City Page State SC
(3) Nature of business textiles Tel. No. 672-65839
(List principal product or service of the concern)

(4) Accident occurred where? Page Chesterfield St. (5) On employer's premises? yes
(City, County and State) (Yes or No)
(6) Date of accident November 5 19 -- Day of week Thursday Hour A.M. 3:00 P.M.
(7) Date disability began November 6, 19-- (8) Was injured paid in full for this day?
(Yes or No)
(9) When did you or foreman first know of injury? November 5, 19-- Name of foreman NA

(10) Name Rodney E. Sanders 263-05-9944
(First Name) (Middle Initial) (Last Name) (S.S.
(11) Address: No. and street P. O. Box 21 City Page State SC Code 23081
(12) Age 29 (13) How long employed by you? 7 years (13a) Department Stockroom
(14) Check (✓): Single ... Married X Divorced ... Widowed ... Male X Female ...
(15) Number of hours worked per day 8 (16) Number of days worked per week 5
(17) Wages: per hour ... per day $ ... per week $ 275.00 ... If board, lodging, fares or other advantages were furnished in addition to wages, give estimated value per week $ ... per month $

(18) What was employee doing when the accident occurred? Walking through his office.
(Describe briefly, such as: loading truck, operating a drill press, shoveling dirt, painting with spray gun, etc.)
(19) Occupation Stockroom Manager
(20) How long employed by you at this occupation? 4 years
(21) What machine, tool, substance or object was most closely connected with the accident? frayed carpet
(Name the machine, tool, appliance, gas, liquid, etc., involved)
(22) If machine or vehicle, what part of it? NA
(State if gears, pulley, motor, etc.)
(23) How did the accident happen Mr. Sanders tripped over a frayed piece of carpet and fell against the edge of a desk.
(Describe the accident fully, stating whether the injured fell or was struck, etc., and all the factors contributing to the accident. Use other side of report for additional space)
(24) In what way was the machine, tool or object defective? the carpet was frayed
(25) How can you prevent this type of accident? Have any employee report worn carpet immediately.
(Specify the remedial measure, such as: better illumination, better ventilation, providing goggles, providing a better guard, better supervision, etc.)
(26) Were mechanical guards, or other necessary safeguards (such as goggles) provided? NA
(27) Was injured using them? NA
(28) How could the injured have prevented the accident? The frayed carpet should have been reported as soon as it was discovered and then repaired.
(Do not say "by being more careful," but specify what employee should or should not have done. For instance: should not have used defective ladder, should not have oiled machinery in motion, should have worn goggles, etc.)
(29) Names and addresses of witnesses Carrie Richards - 600 Maple Avenue

(30) Mr. Sanders suffered a broken upper left arm and a dislocated left shoulder.
(Describe in detail the nature of the injury and the part of the body affected. For instance: amputation of right arm, crushing injury to chest, lead poisoning, dermatitis of right arm and hand, etc.)
(31) Name and address of physician Dr. Charles Tucker - 200 Main Street, Page, SC 23081
(32) Name and address of hospital Gray Memorial Hospital, 502 E. River Ave., Page, SC 23081
(33) Probable length of disability 6 to 8 weeks
(34) Has employee returned to work? no (35) If so, give date NA (36) At what weekly wage? $ NA
(37) Did injury result in death? no (38) If so, give date NA
(39) In case of death, give name and address of nearest relative NA

(40) Name and address of workmen's compensation insurance carrier LIBERTY MUTUAL INSURANCE COMPANY
1222 St. John Place, P.O. Box 1015, Columbia, South Carolina 29210
(41) Date of this report November 6, 19-- Made out by Official position Personnel Clerk

PROCEDURES FOR REPORTING AND HANDLING
INJURIES IN THE OFFICE

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KEY TO TEST NO. 3

Form No. E. P. S. — ASC-5459

STANDARD FORM FOR

EMPLOYER'S SUPPLEMENTAL REPORT OF INJURY

Approved by I. A. I. A. B. C.

Please Send Report in Duplicate to

LIBERTY MUTUAL INSURANCE COMPANY
Suite 100, 1777 St. Julian Place
P.O. Box 4845
Columbia, South Carolina 29240

State's Number For:	File: Carrier: Employer:

Carrier's File No.

(The spaces above not to be filled in by Employer)

If Employer's First Report of Injury did not show that the injured had returned to work, an Employer's Supplemental Report of Injury should be completed and filed immediately after return to work of the employee; or at the end of 60 days. In the event of the death of the employee, this report should be filed immediately.

1. Name of Employer Page Yarns, Inc.
2. Office address: No. and St. 341 S. Pearl St. City or Town Page State SC
3. INSURED BY LIBERTY MUTUAL INSURANCE COMPANY
4. Name of Injured (in full) Rodney (First Name) E. (Middle Initial) Sanders (Last Name)
5. Present address: No. and St. P. O. Box 21 City or Town Page State SC
6. Date of Injury November 5 19-- Day of week Thursday Hour of day A.M. 3:00 P.M.
7. Date Disability began November 6, 19-- A.M. 8:30 P.M.
8. Has injured returned to work? yes If so, date and hour December 4, 19-- 8:30 A.M. P.M.
9. Is injured person earning same wages as before injury? yes If not, explain
10. If disability has not terminated, state probable date of termination of disability. NA
11. Has injured died? no If so, date of death A.M. P.M.

Date of this report December 4, 19-- Firm Name Page Yarns, Inc.

Signed by _____ Official Title Personnel Clerk

PROCEDURES FOR REPORTING AND HANDLING INJURIES IN THE OFFICE

KEY TO TEST NO. 3

Bureau of Labor Statistics
Log and Summary of Occupational Injuries and Illnesses

U.S. Department of Labor

For Calendar Year 19 --

Page 1 of 1

Company Name: Page Yarns, Inc.
Establishment Name: Page Yarns, Inc.
Establishment Address: 341 S. Pearl Street Page, SC 23081

Form Approved O.M.B. No. 44R-1453

Case or File Number	Date of Injury or Onset of Illness	Employee's Name	Occupation	Department	Description of Injury or Illness	Injuries Without Lost Workdays	Injuries With Lost Workdays: Enter DATE of death	Injuries With Lost Workdays: Enter a CHECK if injury involves days away from work, or days of restricted work activity, or both	Injuries With Lost Workdays: Enter a CHECK if injury involves days away from work	Injuries With Lost Workdays: Enter number of DAYS away from work	Injuries With Lost Workdays: Enter number of DAYS of restricted work activity	Illnesses: Type of Illness (CHECK only one column for each illness)	Illnesses With Lost Workdays: Enter DATE of death	Illnesses With Lost Workdays: Enter a CHECK if illness involves days away from work, or days of restricted work activity, or both	Illnesses With Lost Workdays: Enter a CHECK if illness involves days away from work	Illnesses With Lost Workdays: Enter number of DAYS away from work	Illnesses With Lost Workdays: Enter number of DAYS of restricted work activity
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)
					PREVIOUS PAGE TOTALS →												
103	11/5	R. E. Sanders	Stockroom Mgr.	Stockroom	Dislocated shoulder Broken upper left arm			x	x	19	0						
					TOTALS (Instructions on other side of form) →												

INJURIES

ILLNESSES

Certification of Annual Summary Totals By _____ Title _____ Date _____

OSHA No. 200

VIII-75

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SUPPLEMENT: OFFICE HEALTH AND SAFETY QUESTIONNAIRE

SUPPLEMENT

OFFICE HEALTH AND SAFETY QUESTIONNAIRE

Before you can begin to solve health and safety problems in your office, it's necessary to clearly identify them. For this purpose, the following questionnaire was developed by the occupational safety and health staff of the American Federation of State, County, and Municipal Employees, District Council 37, in New York City. You may want to reproduce it on full-sized paper and distribute it to workers in your office or department; you should feel free to make modifications that may make the questionnaire more applicable to your workplace.

When filling out the questionnaire, consider only your immediate work area. If your job requires that you go to a different floor, department, or building during the course of a day, it may be helpful to fill out a separate questionnaire for each of these locations. Don't feel limited by the format of the questionnaire, or by the amount of space provided; some questions require a simple "yes" or "no" answer, others need in-depth explanations.

Name _____

Agency/Dept/Division _____

OFFICE DESIGN

How many people work in your area (that you can see from your desk)?
Do all workers in your area work in an open area?

What size is your office?

- A room with 3 or fewer people
- A room with 4-10 people
- A room with 11-20 people
- A room with 21-35 people
- A room with 36 or more people

Is your desk or any co-worker's within 3 feet of a:

- Photocopier?
- Teletype?
- Stencil machine?
- Posting machine?
- Other machines?

This questionnaire is being printed with the permission of Tilden Press, Washington, D.C. It is extracted from **Office Hazards** by Joel Makower, 1981, pp. 173-179.

Does your office have:
- Enough space?
- Not enough space?
- Too much space?
- Enough privacy?
- Not enough privacy?
- Too much privacy?
- Other?

ENVIRONMENT

Is your office kept clean?
Are trash cans emptied regularly?
Are floors cleaned regularly?
Are there roaches, flies, mice, or other pests? (specify)

MACHINES (Not incl. VDTs)

What machine(s) do you use 4 hours or more each day? (specify)

Do you get any breaks while using these machines? For how long?
Do you ever have any ill effects while working these machines (headaches, nausea, eye irritation, dizziness, etc.)?
Are liquids, powders, or lubricants used to operate any machine? (specify brand name and the label contents)

Which of the following do you use daily?
- White out
- Stencil correction fluid
- Rubber cement
- Other (specify)

Do you use a photocopy machine?
- If so, specify brand and model.

How many hours a day do you use it?
Do you leave the hood open while you work?
Do you look into the light while operating the machine?
Does your machine ever smoke or catch fire?
Do you add toner to the machine?
Does the photocopier room have ventilation?

Are you given thorough instructions for using machines, tools, and equipment?
Are you permitted to work without interference or distractions?
Are "Out of Order" signs posted to identify defective equipment?
Are scissors, knives, and other sharp tools kept closed or put away when not in use?

VIDEO DISPLAY TERMINALS

List brand and model of your machine.

How many hours a day do you use it?
Do you use it continuously or with interruptions?
Is the screen easy to read?
Does the screen have an anti-glare surface?
What color is the screen?
What color are the characters?
What color is the wall behind the screen?

Is the brightness adjustable?
Is the keyboard attached to the machine, or is it separate?
Are there blinds or curtains on nearby windows?
Do the characters on the screen appear to flicker?
Do you wear glasses while using the machine?
  Are they bifocals?
How often do you have your prescription changed?

When operating the VDT, do you ever:
- Get irritated or sore eyes?
- Get dizzy or nauseous?
- Get tense or nervous?

What do you like best about the VDT?

What do you like least about the VDT?

STRESS AND FATIGUE

Do you stand all day doing your job?
- Half-day?
- 2 hours or less?

Do you sit all day?
Does your chair give you good back support?
Do your feet rest on the floor when sitting?

Do you have?
- Varicose veins?
- Backaches or pains?
- Stiff neck?
- Foot problems?
- Other ailments? (specify)

Do you ever lift heavy objects at work?
Does your job make you tense?
- Describe specific symptoms.

AIR QUALITY

Does your office have windows?
- Do they open and close?

Does your office have:
- Central air conditioning?
- Window air conditioners?
- Fans or other blowers?

Are you exposed to drafts?
- Is there sufficient air circulation?
- Is the air ever smoky, stale, or stuffy? If so, about how many hours per day?

Do you ever notice peculiar odors?
Do you know what the smell is and where it comes from?

Is your office usually:
- Too hot?
- Too cold?
- Just right?
- Too humid?
- Too stuffy?

Can you or other workers regulate the temperature?

How often do you get colds?
- Rarely or never
- Once or twice a year
- Three or more times a year

Do you frequently have:
- Sore throats?
- Stiff shoulders or neck?

LIGHTS AND NOISE

Do you use a window as a light source?
What type of overhead lighting do you have?
- Fluorescent
- Incandescent (bulb)
- Other

Are fluorescent lights covered?
Do you have a desk lamp?
Can you adequately control your office lighting?
Do you get eyestrain or frequent headaches at work?

Are you able to talk in a normal speaking voice while you work?
Can you hear others well?
Is your work area:
- Too noisy?
- Too quiet?
- Just right?

Are there quiet places in the office to go to when you need to concentrate?
When you get home from work do you notice any:
- Difficulty with your hearing?
- Ringing in your ears?

SAFETY AND SECURITY

What are the most frequent causes of accidents?
- Lifting heavy objects
- Tripping or falling
- Defective equipment
- Cuts
- Burns
- Other (specify)

Have there been any disabling accidents recently? If so, describe.

Are fire exits marked?
Do you have access to a fire extinguisher? Do you know how to use it?
Do you have fire drills?

Do you know where the nearest stairs are located?
- Are stairs well lit?
- Are they unobstructed?
- Do they have handrails?

Have there been any fires or explosions?
Are there "no smoking" areas in your office? Are they enforced?
Is there a doctor or nurse on the premises?
Is there a well-stocked first-aid kit on the premises?

Does your office have adequate security against intruders?
- Are entrances locked?
- Are restrooms kept locked?
- Do elevators have alarms?

Have there been any security prolems? If so, describe.
Do you know how to locate police or security officers in an emergency?

GENERAL HEALTH

Does your company give physical exams or medical tests? If so, describe.
Are you given test results?
Does your company have a health plan? Do you think it is adequate?

Do you or your co-workers complain about:
- Skin rashes?
- Infections?
- Dizziness?
- Headaches?
- Eye irritation/swelling?
- Nausea?
- Swollen feet/ankles?
- Sore throats?
- Chest pain?
- Ulcers?
- High blood pressure?

Have women in your office had miscarriages or other childbirth-related problems?

OFFICE POLICIES

Do you have a morning break?
Do you have an afternoon break?

Do you work overtime? About how much each month?
Are you paid for overtime?
Do you get advance notice of overtime?

How would you describe the social climate at your office?
- Friendly
- About normal
- Unfriendly
- Other (specify)

Are there any major disputes between workers and management? If so, describe.
Is your immediate supervisor generally supportive of what you do?

Below, or on a separate piece of paper, describe any other information about your job, the office environment, and your health that you think might be important.